

**DRAFT HAZARDOUS WASTE  
POST CLOSURE RENEWAL PERMIT**

CECOS INTERNATIONAL, INC.  
LIVINGSTON FACILITY  
LAD000618298-PC-RN-1  
AI#323/PER20070001



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# FACT SHEET

**FACT SHEET****DRAFT  
HAZARDOUS WASTE POST-CLOSURE  
RENEWAL PERMIT****CECOS International, Inc.  
Livingston Facility****EPA ID # LAD 000 618 298  
Agency Interest # 323  
PER20070001****Livingston, Livingston Parish, Louisiana****Permit Number LAD000618298-PC-RN-1****I. INTRODUCTION**

This fact sheet has been developed in accordance with the Louisiana Administrative Code (LAC) 33:V.703.D and briefly sets forth principal and significant facts, legal, methodological and policy requirements of the proposed draft hazardous waste post-closure renewal permit for the CECOS International, Inc., Livingston facility (CECOS), EPA ID # LAD000618298, Agency Interest # 323, for the post-closure care and monitoring of twenty (20) closed waste treatment/disposal cells, and site-wide corrective action for the solidification building subsurface area and the former landfarm area located at the CECOS facility in Livingston, Livingston Parish, Louisiana.

CECOS is seeking to renew its hazardous waste post-closure permit governing the post-closure monitoring and associated activities of the above referenced units.

The Louisiana Department of Environmental Quality (LDEQ) has prepared this proposed draft hazardous waste post-closure renewal permit which addresses the requirements of LAC Title 33, Part V, Subpart 1 and the Federal Resource Conservation and Recovery Act (RCRA) as amended by the 1984 Hazardous and Solid Waste Amendments (HSWA).

**II. THE PERMITTING PROCESS**

The purpose of this fact sheet is to initiate the permit decision process. The LDEQ's Office of Environmental Services - Waste Permits Division (OES-WPD) is required to prepare this draft hazardous waste permit. The draft permit sets forth all the applicable conditions that the permittee is required to comply with during the life of the permit. CECOS submitted its hazardous waste post-closure renewal permit application in February 2007.

The permitting process will afford the LDEQ, interested citizens, and other agencies the opportunity to evaluate the ability of the permittee to comply with the requirements of the LAC 33:V.Subpart 1, and the Hazardous and Solid Waste Amendments (HSWA) portion.

The public is given a minimum of forty-five (45) days to review and comment on the draft permit. The Administrative Authority, prior to making a decision or taking any final action on the draft

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permit, will consider all significant comments. The decision of the Administrative Authority shall be to issue, deny, modify, or revoke the draft permit in accordance with LAC 33:V.705.

**A. DRAFT HAZARDOUS WASTE PERMIT**

The OES-WPD reviewed the permit application and other pertinent technical information, and prepared a draft permit that contains the language that pertains to the continued post-closure care monitoring of the hazardous waste management units listed in Section IV.

This draft hazardous waste permit is a tentative determination and is not the final decision of the Administrative Authority.

**B. PUBLIC COMMENT PERIOD**

LAC 33:V.715 requires that the public be given at least forty-five (45) days to comment on a draft permit decision.

The specific dates for the opening and closing of the public comment period are contained in the public notice that was issued for this particular permitting action. Any person interested in commenting on the draft permit must do so no later than the end of the allotted forty-five (45) day comment period.

A public hearing for the draft permit may be held if there is significant public interest. If a public hearing is held, the date, location and time will be provided in the public notice. LDEQ will hold the hearing at least forty-five (45) days after the date on which the public notice is given.

Public notice of the proposed permitting action and of a public hearing, if held, shall be published in specified newspapers, announced on the designated radio station, and mailed to those persons contained on the facility's mailing list.

**C. LOCATIONS OF AVAILABLE INFORMATION**

The administrative record, including all supporting documents, is on file at the LDEQ Public Records Center, Room 127, 602 North 5<sup>th</sup> Street, Baton Rouge, Louisiana. These documents may be inspected and copied (at \$0.25 per copy page) at any time between the hours of 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays).

In addition, a copy of the draft operating renewal permit, fact sheet, and supporting documents are available for review at the Livingston Parish Library, Headquarters Branch, Post Office Box 397, Livingston, Louisiana 70754.



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**D. WRITTEN COMMENT SUBMISSION**

Interested persons may submit written comments on the draft permit to the Administrative Authority, at the address listed below, no later than 12:30 p.m. on the closing date of the comment period. All comments should include:

1. the name and address of the commenter,
2. a concise statement of the exact basis for any comment and supporting relevant facts upon which the comment is based,
3. identification of the facility commented on (the EPA Identification Number and AI number), and
4. supporting relevant facts upon which the comments are based.

All comments, requests for public hearings, and/or further requests for information (including copies of this decision, fact sheet, and any requests by public interest groups or individuals who would like to be included in the mailing list) should be made in writing to:

Ms. Soumaya Ghosn  
Louisiana Department of Environmental Quality  
Office of Environmental Services  
Post Office Box 4313  
Baton Rouge, Louisiana 70821-4313  
(225) 219-3276 or fax (225) 219-3309

Any technical questions regarding this draft permit should be addressed to:

Ms. Nora Lane  
Louisiana Department of Environmental Quality  
Office of Environmental Services  
Waste Permits Division  
Post Office Box 4313  
Baton Rouge, LA 70821-4313  
(225) 219-0956 or fax (225) 219-3158

**III. DESCRIPTION OF OVERALL SITE**

The facility is located in Livingston Parish, Louisiana, southwest of Livingston, Louisiana, and southwest of the intersection of Interstate 12 and Louisiana Highway 63. The site was previously owned and operated by BFI-CSI, and is presently owned by CECOS International, Inc. The site is approximately 385 acres, and includes twenty (20) closed waste disposal/treatment cells, and site-

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wide corrective action for the solidification building subsurface area and the former landfarm area. Currently the closed waste disposal/treatment cells are in post-closure care and groundwater detection monitoring. The solidification building subsurface area and the landfarm area have groundwater monitoring in place to assess the groundwater quality beneath and adjacent to the areas and units listed in Section IV.

#### IV. HAZARDOUS WASTE FACILITIES

This draft hazardous waste post-closure renewal permit is applicable to the following waste management units:

SWECO<sup>1</sup> Cells 1, 2, and 3

"BFI"<sup>2</sup> Cells: 1, 2, 3, 4, 5N, 5S, 6, 8, 9, 10, and 11

Cells: 12, 12L, 13(Monofill), 14, 15, and 16

*Solidification Building Subsurface Area (part of site-wide corrective action)*

*Former Landfarm Area (part of site-wide corrective action)*

Footnotes: <sup>1</sup>SWECO: Southwest Environmental Company

<sup>2</sup>Browning Ferris Industries

#### V. FINANCIAL AND LIABILITY REQUIREMENTS

CECOS has submitted documentation to satisfy the financial assurance requirements of LAC 33:V.Chapter 37.

#### VI. SUMMARY OF ENVIRONMENTAL FACTORS CONSIDERED

In accordance with the requirements set forth by the Louisiana Supreme Court in Save Ourselves v. Louisiana Environmental Control Commission, 452 So. 2d 1152 (La. 1983), the LDEQ has considered the following factors in its draft decision on this renewal permit. This is a preliminary analysis based on information currently available to the LDEQ.

**A. The potential and real adverse environmental effects of the proposed project have been avoided to the maximum extent possible.**

CECOS submitted its post-closure permit renewal application for the above listed hazardous waste units in February 2007.

This permit does not propose the alteration of waste classifications, codes or characteristics. The assessment and detection monitoring programs associated with the above-listed units that previously managed hazardous waste will comply with all regulatory and permit requirements to prevent the releases to the environment. These actions minimize the potential and real adverse environmental effects of the former units by collecting and treating any emissions.

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- B. A cost benefit analysis of the environmental impact balanced against the social and economic benefits of the project demonstrates that the social and economic benefits outweigh environmental impacts.**

This is an existing facility submitting an application for the continued post-closure care and monitoring of cells and associated areas that previously managed hazardous waste.

The proposed renewal of the post-closure permit should have little or no affect on property values, the tax base, economic development, or public costs as they pertain to the economics of the local community. The proposed draft hazardous waste renewal post-closure permit should not promote the need for additional fire protection, police, medical facilities, or roads.

- C. There are no alternative projects or alternative sites or mitigating measures which offer more protection to the environment than the proposed project without unduly curtailing non-environmental benefits to the extent applicable.**

**1. ALTERNATIVE PROJECTS**

This draft permit is for the continued post-closure care and monitoring of units that previously managed hazardous waste. There are no known alternative projects that would offer more protection to the environment than issuing a renewal post-closure permit for the RCRA hazardous waste management units without unduly curtailing non-environmental benefits.

**2. ALTERNATIVE SITES**

This draft permit renewal is for an existing facility. The post-closure care and monitoring of surface impoundments and treatment cells that are now closed, that formerly managed hazardous waste, can not be conducted at an alternative location.

**3. MITIGATING MEASURES**

By submittal of its hazardous waste post-closure renewal application, the facility has demonstrated that the continued post-closure care and monitoring of the existing, closed hazardous waste management units will comply with all applicable hazardous waste regulations and permit requirements and will be protective of human health and the environment. No mitigating measures would offer more protection to the environment than permitting without unduly curtailing non-environmental benefits.



# **PUBLIC PARTICIPATION**

**PUBLIC NOTICE**  
**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY (LDEQ)**  
**CECOS INTERNATIONAL, INC.**  
**LIVINGSTON FACILITY**  
**DRAFT HAZARDOUS WASTE POST- CLOSURE PERMIT RENEWAL**

The LDEQ, Office of Environmental Services, is accepting written comments on a draft hazardous waste post-closure permit renewal for CECOS International, Inc. 28422 Frost Road, Livingston, LA 70754 for the Livingston Facility. **The facility is located at 28422 Frost Road, Livingston, Livingston Parish.**

CECOS International, Inc., proposes to continue to monitor and manage twenty (20) closed hazardous waste treatment/disposal cells under the authority of a renewed post-closure permit. Additionally, site-wide corrective action is required and includes the subsurface area associated with the former solidification building and the former landfarm area.

Written comments, written requests for a public hearing or written requests for notification of the final decision regarding this permit action may be submitted to Ms. Soumaya Ghosn at LDEQ, Public Participation Group, P.O. Box 4313, Baton Rouge, LA 70821-4313. **Written comments and/or written requests must be received by 12:30 p.m., Wednesday, July 14, 2010.** Written comments will be considered prior to a final permit decision.

If LDEQ finds a significant degree of public interest, a public hearing will be held. LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The draft hazardous waste post closure permit renewal is available for review at the LDEQ, Public Records Center, Room 127, 602 North 5<sup>th</sup> Street, Baton Rouge, LA. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). **The available information can also be accessed electronically on the Electronic Document Management System (EDMS) on the DEQ public website at [www.deq.louisiana.gov](http://www.deq.louisiana.gov).**

An additional copy may be reviewed at Livingston Parish Library, Headquarters, 13986 Florida Blvd., Livingston, LA.

Inquiries or requests for additional information regarding this permit action should be directed to Nora Lane, LDEQ, Waste Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, phone (225) 219-0956.

Persons wishing to be included on the LDEQ permit public notice mailing list or for other public participation related questions should contact the Public Participation Group in writing at LDEQ, P.O. Box 4313, Baton Rouge, LA 70821-4313, by email at [deqmaillistrequest@la.gov](mailto:deqmaillistrequest@la.gov) or contact the LDEQ Customer Service Center at (225) 219-LDEQ (219-5337).

**Permit public notices including electronic access to the draft permit and associated information can be viewed on the LDEQ permits public webpage at [www.deq.louisiana.gov/apps/pubNotice/default.asp](http://www.deq.louisiana.gov/apps/pubNotice/default.asp) and general information related to the public participation in permitting activities can be viewed at [www.deq.louisiana.gov/portal/tabid/2198/Default.aspx](http://www.deq.louisiana.gov/portal/tabid/2198/Default.aspx).**

Alternatively, individuals may elect to receive the permit public notices via email by subscribing to the LDEQ permits public notice List Server at [www.doa.louisiana.gov/oes/listservpage/ldeq\\_pn\\_listserv.htm](http://www.doa.louisiana.gov/oes/listservpage/ldeq_pn_listserv.htm)

**All correspondence should specify AI Number 323, Permit Number LAD000618298-PC-RN-1, and Activity Number PER20070001.**

**Publication date: May 27, 2010**

**BOBBY JINDAL**  
GOVERNOR



**PEGGY M. HATCH**  
SECRETARY

## State of Louisiana

### DEPARTMENT OF ENVIRONMENTAL QUALITY ENVIRONMENTAL SERVICES

5/17/2010

Telephone: (225) 686-3027  
Fax: (225) 686-1972

Mr. Michael Grimmer, President  
Livingston Parish Council  
20180 Iowa Street  
Livingston, LA 70754

**RE: Request For Public Comments On a Hazardous Waste Permit Closure Renewal  
CECOS International Inc. / Livingston Facility  
AI323, PER20070001, Permit Number LAD000618299PC  
Livingston, Livingston Parish, Louisiana**

Dear Mr. Grimmer:

The Louisiana Department of Environmental Quality (LDEQ) is requesting public comments regarding permitting actions for the CECOS International Inc. / Livingston Facility, 28422 Frost Road, Livingston, LA.

For your reference, attached is a copy of the Draft Hazardous Waste Post Closure Permit Renewal and the legal notice is scheduled to be published in/or announced on:

*Livingston Parish News*  
*Advocate*

*Thursday, May 27, 2010*  
*Thursday, May 27, 2010*

It is also posted on the LDEQ Website, found at [www.deq.state.la.us](http://www.deq.state.la.us). Written comments on the Hazardous Waste Permit Closure Renewal may be submitted to Ms. Soumaya Ghosn, LDEQ-OES, Permits Support Services Division, P.O. Box 4313, Baton Rouge, LA 70821-4313. All comments regarding the permit(s) should specify Agency Interest (AI) No. 323.

Should you have any questions, additional permit information may be obtained from Nora Lane, LDEQ, Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, telephone (225) 219-3181. Should you have any questions regarding the public notice, please contact me at LDEQ, Permits Support Services Division, Permit Support Section, at (225) 219-3280

Please complete the attached 'Verification of Receipt' and mail to me at LDEQ-OES, Permits Support Services Division, PO Box 4313, Baton Rouge, LA 70821-4313, or Fax (225) 325-8163. We appreciate your assistance in our efforts to serve the public. If you have any questions, please call me at (225) 219-3280.

Sincerely,

*Barbara Mason*  
Barbara Mason  
Environmental Project Specialist  
Public Participation Group

BM

Attachments/





**BOBBY JINDAL**  
GOVERNOR

**PEGGY M. HATCH**  
SECRETARY

**State of Louisiana**  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**ENVIRONMENTAL SERVICES**

5/17/2010

Telephone: (214) 665-6750  
Fax: (214) 665-6762

Mr. Kishor Fruitwala  
EPA Region VI  
1445 Ross Avenue  
Dallas, TX 75202-2733

**RE: Request For Public Comments On a Hazardous Waste Permit Closure Renewal  
CECOS International Inc. / Livingston Facility  
AI323, PER20070001, Permit Number LAD000618299PC  
Livingston, Livingston Parish, Louisiana**

Dear Mr. Fruitwala:

The Louisiana Department of Environmental Quality (LDEQ) is enclosing for your review a copy of the permitting action for the above referenced facility.

The legal notice is scheduled to be published in/or announced on:

***Livingston Parish News***  
***Advocate***

***Thursday, May 27, 2010***  
***Thursday, May 27, 2010***

It is also posted on the LDEQ Website, found at [www.deq.state.la.us](http://www.deq.state.la.us). Written comments on this permit action may be submitted to Ms. Soumaya Ghosn, LDEQ-OES, Permits Support Services Division, P.O. Box 4313, Baton Rouge, LA 70821-4313. All comments regarding the permit(s) should specify Agency Interest (AI) No. 323.

Should you have any questions, additional permit information may be obtained from Nora Lane, LDEQ, Permits Division, P.O. Box 4313, Baton Rouge, LA 70821-4313, telephone (225) 219-3181. Should you have any questions regarding the public notice, please contact me at, (225) 219-3280.

Please complete the attached 'Verification of Receipt' and mail or fax to me at LDEQ-OES, Permits Support Services Division, PO Box 4313, Baton Rouge, LA 70821-4313, or Fax (225) 325-8163. We appreciate your assistance in our efforts to serve the public. If you have any questions, please call me at (225) 219-3280.

Sincerely,

***Barbara Mason***  
Barbara Mason  
Environmental Project Specialist  
Public Participation Group

BM

Attachments/



**BOBBY JINDAL**  
GOVERNOR

**PEGGY M. HATCH**  
SECRETARY

**State of Louisiana**  
**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**ENVIRONMENTAL SERVICES**

5/17/2010

Telephone: 225-686-2436  
Fax: 225-686-3888

Ms. Wendy Bobo, Director  
Livingston Parish Library - Headquarters  
13986 Florida Blvd.  
Livingston, LA 70754

**RE: Request For Public Comments On a Hazardous Waste Permit Closure Renewal**  
**CECOS International Inc. / Livingston Facility**  
**A1323, PER20070001, Permit Number LAD000618299PC**  
**Livingston, Livingston Parish, Louisiana**

Dear Ms. Bobo:

We request that the enclosed documents for the permitting action for referenced company/facility be made available for public review upon receipt in the Livingston Parish Library - Headquarters. It is imperative that these documents are available for review at all times; therefore, they cannot be checked out by anyone at any time.

The documents should be retained during the permitting process. At the close of the permitting period, the Louisiana Department of Environmental Quality, Office of Environmental Services (LDEQ-OES), Hazardous Waste Permits Division will provide written notice to you requesting that the information be removed.

Please complete the attached 'Verification by Library' and mail to me at LDEQ-OES, Permits Support Services Division, PO Box 4313, Baton Rouge, LA 70821-4313, or Fax (225) 325-8163. We appreciate your assistance in our efforts to serve the public. If you have any questions, please call me at (225) 219-3280.

Sincerely,

*Barbara Mason*

Barbara Mason  
Environmental Project Specialist  
Public Participation Group

BM

Attachments/

## Worksheet for Technical Review of Working Draft of Proposed Permit

Company Name:	CECOS International, Inc.	AI #: 323/LAD 000618298-PC-RN-1	TEMPO Activity No: PER20070001
Facility Name:	CECOS Livingston	Remarks Submitted by: April 14, 2010	
Permit Writer:	Nora Lane	Permit Writer Email address: nora.lane@la.gov	

## Instructions

**Permit Reference** – Indicate specific portion(s) of the permit to which the remark relates (i.e. “Permit Condition II.E.21.a”). **Remarks** – Explain the basis for each remark. Provide regulatory citations where possible. If the remark is made due to an error or omission in the permit application this must be noted and the revised information **must be submitted**. Revised information may be submitted separately from this worksheet. Please be aware that revised information must be submitted in writing and certified by the Responsible Official, and if necessary, by a Professional Engineer licensed in Louisiana. *Please Note:* New or additional equipment, processes or operating conditions not addressed in the original permit application will be addressed on a case-by-case basis. The Department reserves the right to address such changes in a separate permit action.

**DEQ Response** – **DO NOT COMPLETE THIS SECTION.** This section will be completed by Waste Permits Division of DEQ, included in the proposed permit package and made available for public review during any required public comment period.

- Additional rows may be added as necessary.

- Completed Form shall be emailed to the Permit writer in MS Word compatible format within the deadline specified in the email notification.

- **DO NOT USE THIS FORM TO SUBMIT COMMENTS DURING THE OFFICIAL PUBLIC COMMENT PERIOD.**

Permit Reference	Remarks	Waste Permits Division Response (for official use only)
III.C.2	Can the requirements for evaluating and reviewing the laboratory QA/QC be included in annual reports or is a separate report required that just addresses QA/QC?	LDEQ concurs, language was clarified in permit.
III.O.1 and III.O.2	Please reference the post-closure plan in the permit application(s) for both requirements.	LDEQ concurs, language was clarified in permit.
IV.	Please revise the total acreage from 335 to 385 acres. Also, can the dates of closure for each unit be added to Table 1 on page 23 of 70?	LDEQ concurs, acreage was corrected and dates of closure were added to Table 1.
V.A.1	Please reference the dates of closure for each unit (revised Table 1 as described above) to the end of this requirement.	LDEQ concurs, the dates of closure for each unit were referenced in this condition.



V.C – Second Paragraph	Please clarify the requirements for warning signs. Current text would appear to require warning signs within the interior of the Landfill.	LDEQ concurs, language was amended to indicate that ‘where appropriate or necessary, warning signs...’
VI.C.1	Last sentence – Recommend deletion as regulations LAC 33.3319 H and I require corrective action only for wells with contamination at the point of compliance.	LDEQ does not concur. A point of compliance well is established immediately downgradient from a regulated unit in order to determine if any release has occurred at the earliest possible time. If a release occurs, the permittee must determine the full nature and extent of the release. If necessary, this may require the installation and/or evaluation of wells in addition to the point of compliance wells. No changes in the permit were made.
VI.D Second paragraph	Reference to Table 2 of the GWSAP is incorrect. Correct reference should be Table 1.	LDEQ concurs, language was amended.
VI.E third paragraph on page 28 of 70	Reference to Table 2 of the GWSAP is incorrect. Correct reference should be Table 3.	LDEQ concurs, language was amended.
VI.G.5	Requires total depth measurements for wells during each sampling event. Many of these wells have dedicated pumps, which make total depth measurements difficult and time consuming. The LDEQ approved GWSAP requires that total well depth measurements be performed biennially. Please consider making requirements match text of approved GWSAP.	LDEQ concurs, language was amended to specify that total depth measurement is required every two years.
VI.G.6	Requires removal of 3 well volumes, but does not provide procedures for wells that purge to dryness. Please consider adding language that includes provisions for the development of wells that are purged to dryness.	LDEQ partially concurs. The permit language was amended to add that if wells are purged to dryness, they must be sampled as soon as they have recharged sufficiently for sample collection. In addition, if wells are purged to dryness, the integrity of the wells may have to be evaluated to determine if the wells need to be redeveloped.
VI.G.8	Neither the GWSAP nor the Hazardous Waste regulations require quantification of representativeness based on 5 NTUs. Request that this requirement be eliminated from the permit.	LDEQ concurs. This provision was removed from the permit.
VI.L.4	For clarity, please provide a table at the end of this section that summarizes the notification requirements and contacts.	LDEQ concurs, a brief summary table was added to this condition to summarize notification requirements.

VIII - General	<p>The Corrective Action Strategy (CAS) program description and requirements appear to be general and provide little to no specifics with regards to the two AOCs identified for the program (Solidification Building Subsurface and Former Landfarm Area). Both of these AOCs were investigated, the subject of risk assessments, and underwent both source removal actions and groundwater remedial actions. The CAS discussion and requirements in VIII provide no specifics to how the process will be implemented for these two AOCs.</p>	LDEQ concurs, appropriate specifics were added to Appendix 1 and relevant permit conditions.
VIII - General	<p>CECOS understands that, in addition to the two identified AOCs, that the CAS will be used if new releases are observed and thus much of the language and description of the program is a necessity for the permit. We would request that, where applicable, the requirements and/or anticipated status of the two AOCs with regards to these requirements be identified in the permit. Examples of how information specific to the two AOCs could be incorporated into the permit are provided by permit reference below.</p>	LDEQ concurs, language was amended where appropriate and relevant.
VIII.A.2.a	<p>For both AOCs, source control measures were previously proposed, approved by LDEQ, and implemented.</p>	LDEQ concurs, the language was amended to add: "For new releases not identified in Appendix 1,..."
VIII.A.3 Use of RECAP	<p>Both AOCs underwent investigation, risk assessment, and implemented both source work, and groundwater remedial actions prior to the promulgation of RECAP. A discussion of how these data will or will not be viewed/accepted would provide additional clarification for how these AOCs will be evaluated during the CAS process</p>	LDEQ concurs, language was amended to state that "[Note: Condition VIII.A.3 need not be applied to corrective action activities that have already been completed to satisfaction of the administrative authority except when warranted by new information and/or data (not available to the Administrative Authority at the time it rendered decisions regarding the specific measures and/or activities) relevant to the previously-approved corrective action activities.]"
VIII.A.5	<p>Please provide a regulatory or permit reference to the "as specified in the Permit" portion of this requirement.</p>	LDEQ concurs, language was amended to read: "as specified in this permit and LAC 33:V.Chapter 33."
VIII.A.6	<p>Request that the second sentence be revised to reflect the current status of the two AOCs. "AOCs that are currently being managed under a prescribed corrective action program..."</p>	LDEQ does not concur. Appendix 1, Table 1 provides a status of the corrective action at the facility.

VIII.B.2 Last paragraph	Request an additional sentence to indicate that both AOCs have undergone investigation, risk assessment, source work, and groundwater remediation and it is anticipated that many of these documents will be accepted by reference during the scoping meeting.	LDEQ concurs, language was amended to state that "(Note: Both AOCs currently identified in this permit have undergone investigation, risk assessment, source work, and groundwater remediation and it is anticipated that many of these documents was accepted by reference during the scoping meeting.)"
VIII.D	Request additional text that acknowledges the work performed to date in development of the conceptual model for the two AOCs	LDEQ concurs, language was amended to read: "... or an update of the CSM already submitted for the AOC's and/corrective action initiated for the units listed in Appendix 1."
VIII.E.1	Requirement does not provide procedures for challenging the Administrative Authority's requirement of interim measures.	LDEQ concurs, language was added to Condition VIII.E.3 to read: "For agency initiated permit changes, La R.S. 3023.B.(2) requires that the permittee be given notice and an opportunity for a hearing, prior to modifying a permit or permit conditions for cause."  Additionally, Condition VIII.O, Dispute Resolution, was added to the permit.  In other instances it is up to the Permittee to determine how to best protect its rights.
VIII.E.6	At anytime, recommend revising to read "At any time.."	LDEQ concurs, language was amended.
VIII.F	Request additional text that acknowledges the work performed to date to investigate and remediate both AOCs.	LDEQ concurs, language was added to read: "[Note: Condition VIII.F need not be applied to corrective action activities that have already been completed to satisfaction of the administrative authority except when warranted by new information and/or data (not available to the Administrative Authority at the time it rendered decisions regarding the specific measures and/or activities) relevant to the previously-approved corrective action activities.]"
VIII.F.1.c(9) and (10)	Please provide reference dates	LDEQ concurs, language was amended.



VIII.F.2 – Second Paragraph	<p>Please provide additional information on the resolution process in the event that CECOS provides a written statement of the ground for exception. Also, please add “deficiencies” to the second sentence of paragraph 2 that begins “The permittee shall...” between “these” and “within”.</p>	<p>The approval process for the CAS Investigation Work Plan would follow the same basic format and procedures as those of the “Notice of Deficiency (NOD)” process for a permit application. The LDEQ and facility will attempt to work through issues to reach a mutually acceptable decision.</p> <p>For agency initiated permit changes, La R.S. 3023.B.(2) requires that the permittee be given notice and an opportunity for a hearing, prior to modifying a permit or permit conditions for cause.</p> <p>Additionally, Condition VIII.O, Dispute Resolution, was added to the permit.</p> <p>The word “these” was replaced with “any deficiencies.”</p>
VIII.G.2	<p>Please provide additional detail (timing, authorized LDEQ representative to approve change, etc.) on the process by which approval by the administrative authority will be documented if changes take place during implementation of a CAS Investigation.</p>	<p>LDEQ concurs; language was amended to read:  “Deviations from the approved CAS Investigation work plan, which may become necessary during implementation (such as field work), should if possible, be approved by the Administrative Authority prior to the necessary adjustment. Any deviations from the work plan must be fully documented and described in the progress reports (Condition VIII.C), RECAP Report (Condition VIII.H) and the final Risk Management Plan (Condition VIII.J).”</p>
VIII.I.4	<p>Please clarify the language in this requirement. As currently written, it would appear that we could have to propose upon approval of the administrative authority.</p>	<p>LDEQ concurs, language was amended to read:  “...the permittee may propose to use institutional controls to supplement treatment or containment-based remedial actions. Institutional controls must be approved by the Administrative Authority (Section 2.15 of RECAP).”</p>

VIII.J.4, VIII.J.5, VIII.J.6, and VIII.7	The order of these items is confusing. Generally, the process consists of: 1) submittal of a Class 3 Modification Request; ii) Draft Permit; iii) Public Comment; and iv) issuance of Modification.	LDEQ partially concurs. The standard Class 3 modification process does differ from other classes of modifications. The permit was not amended.
VIII.K.2.f, VIII.K.2.g, VIII.K.2.h, and VIII.K.2.i	See comment above on confusing sequence of approvals, submittals, public comment.	LDEQ partially concurs. The standard Class 3 modification process does differ from other classes of modifications. The permit was not amended.
Table 1	Request text that acknowledges that both of the AOCs identified in Appendix 1 were investigated, the subject of risk assessments, and underwent both source removal actions and groundwater remedial actions. Also, indicate that the actual number of actions and due dates for these AOCs may vary as much of these data and elements of the CAS program were previously performed. Additional text might also note that the applicable actions for these two AOCs will be determined during the CAS Scoping Meeting.	LDEQ concurs, language was amended to add:  "For AOCs identified in Appendix 1 some activities may have been accomplished, such as investigation, interim measures, corrective action, source removal actions and/or groundwater remedial actions. For the AOCs identified in Appendix 1, the required action and/or due dates may vary. Applicable actions for the AOCs listed in Appendix 1 will be determined during the CAS Scoping Meeting."
Appendix 1 AOC/SWMU Description	Known contamination under solidification building is only known to be in groundwater. Recommend revision to read "Subsurface groundwater beneath the former solidification building" to match the landfarm description.	LDEQ does not concur. It will be necessary to evaluate previous data concerning the subsurface soils. During the CAS process, data will be evaluated to determine if the soils require further action. Appendix 1 was not revised.

**SIGNATURE PAGE**

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**HAZARDOUS WASTE POST-CLOSURE PERMIT**

**PERMITTEE:** CECOS INTERNATIONAL, INC.

**PERMIT NUMBER:** LAD 000 618 298-PC-RN-1  
Agency Interest # 323, Permit Activity #PER20070001

**FACILITY LOCATION:** CECOS-LIVINGSTON  
LIVINGSTON PARISH, LOUISIANA

This permit is issued by the Louisiana Department of Environmental Quality (LDEQ) under the authority of the Louisiana Hazardous Waste Control Law La. R.S. 30:2171 et seq., and the regulations adopted thereunder and under the authority of the 1984 Hazardous and Solid Waste Amendments (HSWA) to the Resource Conservation and Recovery Act (RCRA) to CECOS Livingston (hereafter called the Permittee), to conduct post-closure care and monitoring at the facility located in Livingston, Livingston Parish, Louisiana, at latitude 31° 01' 47" N and longitude 93° 04' 50" W.

For the purposes of this permit, the "Administrative Authority" shall be the Secretary of the Louisiana Department of Environmental Quality or his/her designee.

The permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein and the applicable regulations contained in the Louisiana Administrative Code, Title 33, Part V, Subpart I (LAC 33:V.Subpart I.) Applicable regulations are those which are in effect on the effective date of issuance of this permit.

This permit is based on the assumption that the information provided to LDEQ by the permittee is accurate. Further, this permit is based in part on the provisions of Sections 206, 212, and 224 of the HSWA of 1984, which modify Section 3004 and 3005 of RCRA. In particular, Section 206 requires corrective action for all releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage or disposal facility seeking a permit, regardless of the time at which waste was placed in such unit.

Section 212 provides authority to review and modify the permit at any time. Any inaccuracies found in the submitted information may be grounds for the termination, modification, revocation, and reissuance of this permit (see LAC 33:V.323) and potential enforcement action. The permittee must inform the LDEQ of any deviation from or changes in the information in the application which would affect the permittee's ability to comply with the applicable regulations or permit conditions.

This permit shall be effective as of \_\_\_\_\_, and shall remain in effect until \_\_\_\_\_, unless revoked, reissued, modified or terminated in accordance with LAC 33:V.323 and 705 of the Louisiana Hazardous Waste Regulations. The Administrative Authority may issue any permit for a duration that is less than the maximum term of ten (10) years and the term shall not be extended beyond the maximum duration by modification in accordance with LAC 33:V.315.

Post-closure requirements of LAC 33:V. Chapter 35, Subchapter B must continue for at least thirty (30) years after the date of closure of those units listed in Condition IV of this permit. Expiration of this permit does not relieve the permittee of the responsibility to reapply for a permit for the remainder of the minimum thirty (30) year post-closure care period.

Provisions of this permit may be appealed in writing pursuant to LA. R.S. 30:2024(A) within 30 days from receipt of the permit. Only those provisions specifically appealed will be suspended by a request for hearing, unless the Secretary elects to suspend other provisions as well. A request for hearing must be sent to the following:

Louisiana Department of Environmental Quality  
Office of the Secretary  
Attention: Hearings Clerk, Legal Services Division  
Post Office Box 4302  
Baton Rouge, Louisiana 70821-4302

DRAFT

Cheryl Sonnier Nolan, Assistant Secretary  
Louisiana Department of Environmental Quality

\_\_\_\_\_  
Date



# **PART A APPLICATION**



OMB#: 2050-0034 Expires 11/30/2005

<b>SEND COMPLETED FORM TO:</b> The Appropriate State or EPA Regional Office.	United States Environmental Protection Agency <b>RCRA SUBTITLE C SITE IDENTIFICATION FORM</b>		
<b>1. Reason for Submittal</b> (See instructions on page 14.)  MARK ALL BOX(ES) THAT APPLY	<b>Reason for Submittal:</b> <input type="checkbox"/> To provide Initial Notification of Regulated Waste Activity (to obtain an EPA ID Number for hazardous waste, universal waste, or used oil activities) <input type="checkbox"/> To provide Subsequent Notification of Regulated Waste Activity (to update site identification information) <input type="checkbox"/> As a component of a First RCRA Hazardous Waste Part A Permit Application <input checked="" type="checkbox"/> As a component of a Revised RCRA Hazardous Waste Part A Permit Application (Amendment # <u>1</u> ) <input type="checkbox"/> As a component of the Hazardous Waste Report		
<b>2. Site EPA ID Number</b> (page 15)	EPA ID Number <u>L A D 0 0 0 6 1 8 2 9 8</u>		
<b>3. Site Name</b> (page 15)	Name: CECOS International, Inc., Livingston Facility		
<b>4. Site Location Information</b> (page 15)	Street Address: 28422 Frost Road		
	City, Town, or Village: Livingston	State: Louisiana	
	County Name: Livingston	Zip Code: 70754	
<b>5. Site Land Type</b> (page 15)	Site Land Type: <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other		
<b>6. North American Industry Classification System (NAICS) Code(s) for the Site</b> (page 15)	A. <u>5 6 2 2 1 1</u>	B. <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u>	
	C. <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u>	D. <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u> <u>  </u>	
<b>7. Site Mailing Address</b> (page 16)	Street or P. O. Box: Same as Item 4		
	City, Town, or Village:		
	State:		
	Country:	Zip Code:	
<b>8. Site Contact Person</b> (page 16)	First Name: Matt	MI:	Last Name: Robillard
	Phone Number: (337) 315-8405 Extension:		Email address: Matt.Robillard@awin.com
<b>9. Operator and Legal Owner of the Site</b> (pages 16 and 17)	A. Name of Site's Operator: CECOS International, Inc.		Date Became Operator (mm/dd/yyyy): 05/01/1978
	Operator Type: <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other		
	B. Name of Site's Legal Owner: BFI Waste Systems of North America, Inc.		Date Became Owner (mm/dd/yyyy): 02/01/1983
	Owner Type: <input checked="" type="checkbox"/> Private <input type="checkbox"/> County <input type="checkbox"/> District <input type="checkbox"/> Federal <input type="checkbox"/> Indian <input type="checkbox"/> Municipal <input type="checkbox"/> State <input type="checkbox"/> Other		

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<b>9. Legal Owner (Continued) Address</b>	<b>Street or P. O. Box:</b> 18500 North Allied Way	
	<b>City, Town, or Village:</b> Phoenix	
	<b>State:</b> AZ	
	<b>Country:</b> U.S.A.	<b>Zip Code:</b> 85054

**10. Type of Regulated Waste Activity**

Mark "Yes" or "No" for all activities; complete any additional boxes as instructed. (See instructions on pages 18 to 21.)

**A. Hazardous Waste Activities**

Complete all parts for 1 through 6.

**Y ☒ N ☐ 1. Generator of Hazardous Waste**

If "Yes", choose only one of the following - a, b, or c.

☒ a. LQG: Greater than 1,000 kg/mo (2,200 lbs./mo.)  
of non-acute hazardous waste; or☐ b. SQG: 100 to 1,000 kg/mo (220 - 2,200 lbs./mo.)  
of non-acute hazardous waste; or☐ c. CESQG: Less than 100 kg/mo (220 lbs./mo.)  
of non-acute hazardous waste

In addition, indicate other generator activities.

**Y ☐ N ☒ d. United States Importer of Hazardous Waste****Y ☐ N ☒ e. Mixed Waste (hazardous and radioactive) Generator****Y ☐ N ☒ 2. Transporter of Hazardous Waste****Y ☐ N ☒ 3. Treater, Storer, or Disposer of****Hazardous Waste (at your site) Note:**  
A hazardous waste permit is required for  
this activity.**Y ☐ N ☒ 4. Recycler of Hazardous Waste (at your  
site)****Y ☐ N ☒ 5. Exempt Boiler and/or Industrial  
Furnace**

If "Yes", mark each that applies.

☐ a. Small Quantity On-site Burner  
Exemption☐ b. Smelting, Melting, and Refining  
Furnace Exemption**Y ☐ N ☒ 6. Underground Injection Control****B. Universal Waste Activities****Y ☐ N ☒ 1. Large Quantity Handler of Universal Waste (accumulate  
5,000 kg or more) [refer to your State regulations to  
determine what is regulated]. Indicate types of universal  
waste generated and/or accumulated at your site. If "Yes",  
mark all boxes that apply:**

	<u>Generate</u>	<u>Accumulate</u>
a. Batteries	<input type="checkbox"/>	<input type="checkbox"/>
b. Pesticides	<input type="checkbox"/>	<input type="checkbox"/>
c. Thermostats	<input type="checkbox"/>	<input type="checkbox"/>
d. Lamps	<input type="checkbox"/>	<input type="checkbox"/>
e. Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>
f. Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>
g. Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>

**Y ☐ N ☒ 2. Destination Facility for Universal Waste**

Note: A hazardous waste permit may be required for this activity.

**C. Used Oil Activities**

Mark all boxes that apply.

**Y ☐ N ☒ 1. Used Oil Transporter**

If "Yes", mark each that applies.

☐ a. Transporter  
☐ b. Transfer Facility**Y ☐ N ☒ 2. Used Oil Processor and/or Re-refiner**

If "Yes", mark each that applies.

☐ a. Processor  
☐ b. Re-refiner**Y ☐ N ☒ 3. Off-Specification Used Oil Burner****Y ☐ N ☒ 4. Used Oil Fuel Marketer**

If "Yes", mark each that applies.

☐ a. Marketer Who Directs Shipment of  
Off-Specification Used Oil to  
Off-Specification Used Oil Burner  
☐ b. Marketer Who First Claims the  
Used Oil Meets the Specifications

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**11. Description of Hazardous Wastes (See instructions on page 22.)**

**A. Waste Codes for Federally Regulated Hazardous Wastes.** Please list the waste codes of the Federal hazardous wastes handled at your site. List them in the order they are presented in the regulations (e.g., D001, D003, F007, U112). Use an additional page if more spaces are needed.

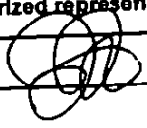
F039					

**B. Waste Codes for State-Regulated (i.e., non-Federal) Hazardous Wastes.** Please list the waste codes of the State-regulated hazardous wastes handled at your site. List them in the order they are presented in the regulations. Use an additional page if more spaces are needed for waste codes.


**12. Comments (See instructions on page 22.)**

This permit application applies to the 381-acre closed hazardous waste disposal facility at the CECOS International, Inc. Livingston Facility. The closed facility comprises the following units: SWECO Cell 1, SWECO Cell 2, SWECO Cell 3, BFI Cell 1, BFI Cell 2, BFI Cell 3, BFI Cell 4, BFI Cell 5N, BFI Cell 5S, BFI Cell 6, BFI Cell 8, BFI Cell 9, BFI Cell 10, BFI Cell 11, Cell 12, Cell 13 Monofill, Cell 14, Cell 15, Cell 16, Cell 18, a truck wash, a truck sampling station, a solidification building and container storage area, and a former landfarm area. See the attached Page A1 immediately following this form for additional information on unit dimensions, capacities, dates of operation, closure status, and, where available, waste type and quantities managed.

**13. Certification.** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. For the RCRA Hazardous Waste Part A Permit Application, all operator(s) and owner(s) must sign (see 40 CFR 270.10 (b) and 270.11). (See instructions on page 22.)

Signature of operator, owner, or an authorized representative	Name and Official Title (type or print)	Date Signed (mm/dd/yyyy)
	Joe Benco - Director, Engineering	5/5/2009

**Summary of Solid Waste Management Units  
CECOS Livingston Facility - Livingston, Louisiana**

Unit	Type	Approximate Size (ft)	Capacity (cubic yds)	Dates of Operation	Status	End of Post-Closure Care Period
SWECO 1	Pre-RCRA	200 x 240 x 28	49,778	6/77 - 2/78	Closed 2/15/78	1/2020
SWECO 2	Pre-RCRA	200 x 240 x 28	49,778	1/77 - 3/78	Closed 3/30/78	1/2020
SWECO 3	Pre-RCRA	200 x 240 x 28	49,778	2/78 - 5/78	Closed 5/19/78	1/2020
BFI 1	Pre-RCRA	245 x 240 x 30	65,333	6/78 - 1/79	Closed 1/16/79	1/2020
BFI 2	Pre-RCRA	220 x 215 x 30	52,556	2/79 - 6/79	Closed 4/6/79	1/2020
BFI 3	Pre-RCRA	185 x 210 x 30	43,167	4/79 - 6/79	Closed 6/20/79	1/2020
BFI 4	Pre-RCRA	330 x 300 x 15	55,000	6/79 - 10/79	Closed 10/22/79	1/2020
BFI 5N	Pre-RCRA	290 x 310 x 27	89,900	10/79 - 3/80	Closed 3/29/80	1/2020
BFI 5S	RCRA	660 x 385 x 30	282,333	4/82 - 8/83	Closed 4/4/84	1/2020
BFI 6	Pre-RCRA	340 x 320 x 28	112,830	3/80 - 8/80	Closed 8/28/80	1/2020
BFI 8	Pre-RCRA	335 x 315 x 28	109,433	8/80 - 11/80	Closed 11/30/80	1/2020
BFI 9	RCRA	605 x 320 x 32	229,452	12/80 - 7/81	Closed 7/8/81	1/2020
BFI 10	RCRA	700 x 335 x 25	217,129	7/81 - 4/82	Closed 5/3/82	1/2020
BFI 11	RCRA	700 x 335 x 25	217,129	9/81 - 1/82	Closed 1/3/82	1/2020
Cell 12	RCRA	815 x 325 x 25	245,254	8/83 - 4/87	Closed 4/24/87	1/2020
Cell 12L	RCRA	540 x 390 x 25 + 31 x 325 x 25	204,328	5/85 - 8/86	Closed 8/21/86	1/2020
Cell 13 Monofill	RCRA	400 x 400 x 28	124,444	8/85 - 1/87	Closed 1/27/87	1/2020
Cell 14	RCRA	730 x 330 x 28 + 150 x 340 x 28	303,489	8/88 - 6/90	Closed 9/28/90	1/2020
Cell 15	RCRA	650 x 350 x 28	235,925	8/86 - 9/87	Closed 9/24/87	1/2020
Cell 16	RCRA	625 x 325 x 28	210,848	9/87 - 8/88	Closed 8/8/88	1/2020
Cell 18	RCRA	834 x 423 x 25	210,000	1/90	Clean-Closed 17/90	NA
Truck Wash	RCRA	3,600 x 423 x 25	16,000 gallons	9/85 - 6/90	Clean-Closed 12/94	NA
Truck Sampling Station	RCRA	2400 sq. ft	NA	9/85 - 6/90	Clean-Closed 12/94	NA
Solidification Building / Container Storage Area	RCRA	22,400 sq. ft / 2,400 sq. ft	1,260 drums / 160 drums	5/85 - 6/90	Risk-Based Closed 1995	1/2026
Former Landfarm Area	Pre-RCRA	NA	NA	11/72 - 11/78	NA	1/2026

NA: Not applicable.  
Information reproduced from 1995 post-closure permit application.

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United States Environmental Protection Agency

**HAZARDOUS WASTE PERMIT INFORMATION FORM**

1. Facility Permit Contact (See instructions on page 23)	First Name: Matt		MI:	Last Name: Robillard		
	Phone Number: (337) 315-8405			Phone Number Extension:		
2. Facility Permit Contact Mailing Address (See instructions on page 23)	Street or P.O. Box: 28422 Frost Road					
	City, Town, or Village: Livingston					
	State: Louisiana					
	Country: U.S.A.			Zip Code: 70754		
3. Operator Mailing Address and Telephone Number (See instructions on page 23)	Street or P.O. Box: 28422 Frost Road					
	City, Town, or Village: Livingston					
	State: Louisiana					
	Country: U.S.A.		Zip Code: 70754	Phone Number: (337) 315-8405		
4. Legal Owner Mailing Address and Telephone Number (See instructions on page 23)	Street or P.O. Box: 18500 North Allied Way					
	City, Town, or Village: Phoenix					
	State: AZ					
	Country: U.S.A.		Zip Code: 85054	Phone Number:		
5. Facility Existence Date (See instructions on page 24)	Facility Existence Date (mm/dd/yyyy): 05/01/1978					
6. Other Environmental Permits (See instructions on page 24)						
A. Permit Type (Enter code)		B. Permit Number				C. Description
N		L A 0 0 9 5 9 1 5 3				NPDES Permit
7. Nature of Business (Provide a brief description; see instructions on page 24)						
The CECOS International, Inc. Livingston Facility is a 381-acre closed hazardous waste disposal facility. The facility performs post-closure care and monitoring. The facility no longer treats, stores, or disposes of hazardous wastes.						

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Process Codes and Design Capacities (See instructions on page 24) - Enter information in the Sections on Form Page 3.

**A. PROCESS CODE** - Enter the code from the list of process codes in the table below that best describes each process to be used at the facility. Fifteen lines are provided for entering codes. If more lines are needed, attach a separate sheet of paper with the additional information. For "other" processes (i.e., D99, S99, T04 and X99), enter the process information in Item 9 (including a description).

**B. PROCESS DESIGN CAPACITY** - For each code entered in Section A, enter the capacity of the process.

- 1. AMOUNT** - Enter the amount. In a case where design capacity is not applicable (such as in a closure/post-closure or enforcement action) enter the total amount of waste for that process.
- 2. UNIT OF MEASURE** - For each amount entered in Section B(1), enter the code in Section B(2) from the list of unit of measure codes below that describes the unit of measure used. Select only from the units of measure in this list.

**C. PROCESS TOTAL NUMBER OF UNITS** - Enter the total number of units for each corresponding process code.

PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS CODE	PROCESS	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
D79	Disposal: Underground Injection Well Disposal	Gallons; Liters; Gallons Per Day; or Liters Per Day	T81	Cement Kiln	For T81-T93:
D80	Landfill	Acre-feet; Hectare-meter; Acres; Cubic Meters; Hectares; Cubic Yards	T82	Lime Kiln	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour
D81	Land Treatment	Acres or Hectares	T83	Aggregate Kiln	
D82	Ocean Disposal	Gallons Per Day or Liters Per Day	T84	Phosphate Kiln	
D83	Surface Impoundment Disposal	Gallons; Liters; Cubic Meters; or Cubic Yards	T85	Coke Oven	
D99	Other Disposal	Any Unit of Measure in Code Table Below	T86	Blast Furnace	
S01	Storage: Container	Gallons; Liters; Cubic Meters; or Cubic Yards	T87	Smelting, Melting, or Refining Furnace	Hour; Liters Per Hour; Kilograms Per Hour; or Million Btu Per Hour
S02	Tank Storage	Gallons; Liters; Cubic Meters; or Cubic Yards	T88	Titanium Dioxide Chloride Oxidation Reactor	
S03	Waste Pile	Cubic Yards or Cubic Meters	T89	Methane Reforming Furnace	
S04	Surface Impoundment Storage	Gallons; Liters; Cubic Meters; or Cubic Yards	T90	Pulping Liquor Recovery Furnace	
S05	Drip Pad	Gallons; Liters; Acres; Cubic Meters; Hectares; or Cubic Yards	T91	Combustion Device Used In The Recovery Of Sulfur Values From Spent Sulfuric Acid	
S06	Containment Building Storage	Cubic Yards or Cubic Meters	T92	Halogen Acid Furnaces	
S99	Other Storage	Any Unit of Measure in Code Table Below	T93	Other Industrial Furnaces Listed In 40 CFR §260.10	
T01	Treatment: Tank Treatment	Gallons Per Day; Liters Per Day	T94	Containment Building - Treatment	Cubic Yards; Cubic Meters; Short Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Metric Tons Per Day; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour
T02	Surface Impoundment Treatment	Gallons Per Day; Liters Per Day	X01	Miscellaneous (Subpart X): Open Burning/Open Detonation	Any Unit of Measure in Code Table Below
T03	Incinerator	Short Tons Per Hour; Metric Tons Per Hour; Gallons Per Hour; Liters Per Hour; Btu Per Hour; Pounds Per Hour; Short Tons Per Day; Kilograms Per Hour; Gallons Per Day; Liters Per Day; Metric Tons Per Hour; or Million Btu Per Hour	X02	Mechanical Processing	Short Tons Per Hour; Metric Tons Per Hour; Short Tons Per Day; Metric Tons Per Day; Pounds Per Hour; Kilograms Per Hour; Gallons Per Hour; Liters Per Hour; or Gallons Per Day
T04	Other Treatment	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; Gallons Per Day; Liters Per Hour; or Million Btu Per Hour	X03	Thermal Unit	Gallons Per Day; Liters Per Day; Pounds Per Hour; Short Tons Per Hour; Kilograms Per Hour; Metric Tons Per Day; Metric Tons Per Hour; Short Tons Per Day; Btu Per Hour; or Million Btu Per Hour
T80	Boiler	Gallons; Liters; Gallons Per Hour; Liters Per Hour; Btu Per Hour; or Million Btu Per Hour	X04	Geologic Repository	Cubic Yards; Cubic Meters; Acre-feet; Hectare-meter; Gallons; or Liters
			X99	Other Subpart X	Any Unit of Measure Listed Below

UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE	UNIT OF MEASURE	UNIT OF MEASURE CODE
Gallons.....	G	Short Tons Per Hour.....	D	Cubic Yards.....	Y
Gallons Per Hour.....	E	Metric Tons Per Hour.....	W	Cubic Meters.....	C
Gallons Per Day.....	U	Short Tons Per Day.....	N	Acres.....	B
Liters.....	L	Metric Tons Per Day.....	S	Acre-feet.....	A
Liters Per Hour.....	H	Pounds Per Hour.....	J	Hectares.....	Q
Liters Per Day.....	V	Kilograms Per Hour.....	R	Hectare-meter.....	F
		Million Btu Per Hour.....	X	Btu Per Hour.....	I





EPA ID NO: | L | A | D | | 0 | 0 | 0 | | 6 | 1 | 9 | | 2 | 9 | 8 |

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**Description of Hazardous Wastes (See instructions on page 25) - Enter information in the Sections on Form Page 5.**

**A. EPA HAZARDOUS WASTE NUMBER** - Enter the four-digit number from 40 CFR, Part 261 Subpart D of each listed hazardous waste you will handle. For hazardous wastes which are not listed in 40 CFR, Part 261 Subpart D, enter the four-digit number(s) from 40 CFR Part 261, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

**B. ESTIMATED ANNUAL QUANTITY** - For each listed waste entered in Section A, estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in Section A, estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

**C. UNIT OF MEASURE** - For each quantity entered in Section B, enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure, taking into account the appropriate density or specific gravity of the waste.

**D. PROCESSES****1. PROCESS CODES:**

**For listed hazardous waste:** For each listed hazardous waste entered in Section A, select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the listed hazardous wastes.

**For non-listed hazardous waste:** For each characteristic or toxic contaminant entered in Section A, select the code(s) from the list of process codes contained in Items 8A and 9A on page 3 to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

**NOTE: THREE SPACES ARE PROVIDED FOR ENTERING PROCESS CODES. IF MORE ARE NEEDED:**

1. Enter the first two as described above.
2. Enter "000" in the extreme right box of Item 10.D(1).
3. Use additional sheet, enter line number from previous sheet, and enter additional code(s) in Item 10.E.

**2. PROCESS DESCRIPTION:** If a code is not listed for a process that will be used, describe the process in Item 10.D(2) or in Item 10.E(2).

**NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER** - Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in Section A. On the same line complete Sections B, C and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In Section A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In Section D(2) on that line enter "Included with above" and make no other entries on that line.
3. Repeat step 2 for each EPA Hazardous Waste Number that can be used to describe the hazardous waste.

**EXAMPLE FOR COMPLETING Item 10 (shown in line numbers X-1, X-2, X-3, and X-4 below)** - A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operations. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

Line Number	A. EPA Hazardous Waste No. (Enter code)				B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES									
	(1) PROCESS CODES (Enter code)						(2) PROCESS DESCRIPTION- (if a code is not entered in D(1))									
X 1	K	0	5	4	900	P	T	0	3	D	8	0				
X 2	D	0	0	2	400	P	T	0	3	D	8	0				
X 3	D	0	0	1	100	P	T	0	3	D	8	0				
X 4	D	0	0	2												Included With Above

EPA ID NO: | L | A | D | | 0 | 0 | 0 | | 6 | 1 | 8 | | 2 | 9 | 8 |

OMB #: 2050-0034 Expires 11/30/2005

Description of Hazardous Wastes (Continued. Use the Additional Sheet(s) as necessary; number pages as 5 a, etc.)

Line Number	A. EPA Hazardous Waste No. (Enter code)	B. Estimated Annual Quantity of Waste	C. Unit of Measure (Enter code)	D. PROCESSES											
				(1) PROCESS CODES (Enter code)											
1															
2															
3															
4															
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EPA ID NO: | L | A | D | | 0 | 0 | 0 | | 6 | 1 | 8 | | 2 | 9 | 8 |

OMB #: 2050-0034 Expires 11/30/2005

**Map (See instructions on pages 25 and 26)**

*Attach to this application a topographic map, or other equivalent map, of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in this map area. See instructions for precise requirements.*

**12. Facility Drawing (See instructions on page 26)**

*All existing facilities must include a scale drawing of the facility (see instructions for more detail).*

**13. Photographs (See instructions on page 26)**

*All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).*

**14. Comments (See instructions on page 26)**

This permit application applies to the 381-acre closed hazardous waste disposal facility at the CECOS International, Inc. Livingston Facility. The closed facility comprises the following units: SWECO Cell 1, SWECO Cell 2, SWECO Cell 3, BFI Cell 1, BFI Cell 2, BFI Cell 3, BFI Cell 4, BFI Cell 5N, BFI Cell 5S, BFI Cell 6, BFI Cell 8, BFI Cell 9, BFI Cell 10, BFI Cell 11, Cell 12, Cell 13 Monofill, Cell 14, Cell 15, Cell 16, Cell 18, a truck wash, a truck sampling station, a solidification building and container storage area, and a former landfarm area. See the attached Page A-1 immediately following this form for additional information on unit dimensions, capacities, dates of operation, closure status, and, where available, waste type and quantities managed.

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# **BODY OF PERMIT**

## **HAZARDOUS WASTE POST-CLOSURE PERMIT**

**CECOS INTERNATIONAL, INC.  
EPA ID# LAD000618298  
28422 Frost Road  
Livingston, Louisiana 70754  
Livingston Parish**

**Agency Interest #323 / PER20070001  
Permit Number LAD000618298-PC-RN-1**

### **I. PERMIT PREAMBLE**

This permit is issued to CECOS International, Inc., Livingston, Louisiana, hereinafter referred to as the permittee, by the Louisiana Department of Environmental Quality (LDEQ) under authority of the Louisiana Hazardous Waste Control Law, R.S. 30:2171 et seq., and the regulations adopted there under.

This permit is based on information submitted in the permit application, and all subsequent amendments, and on the permittee's certification that such information is accurate and that all facilities were or will be maintained and operated as specified in the application.

This permit is conditioned upon full compliance with all applicable provisions of the Louisiana Hazardous Waste Control Law, R.S. 30:2171 et. seq., and the regulations adopted there under.

## GLOSSARY OF TERMS

For the purpose of this permit, terms used herein shall have the same meaning as those in LAC 33:V.Subpart 1 unless the context of use in this permit clearly indicates otherwise. Where terms are not otherwise defined, the meaning otherwise associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

**“Administrative Authority”** means the Secretary of the Louisiana Department of Environmental Quality or his/her designee (including appropriate assistant secretary).

**“Application”** refers to the RCRA Part B Permit Application and subsequent amendments submitted by the permittee for obtaining a permit.

**“Area of Concern” (AOC)** means any discernable unit or area which, in the opinion of the Administrative Authority, may have received solid or hazardous waste or waste containing hazardous constituents at any time. The Administrative Authority may require investigation of the unit to determine if it is a Solid Waste Management Unit (SWMU). If shown to be a SWMU by the investigation, the AOC must be reported by the permittee as a newly-identified SWMU. If the AOC is shown not to be a SWMU by the investigation, the Administrative Authority may determine that no further action is necessary and notify the permittee in writing.

**“Area of Investigation” (AOI)** is a zone contiguous to and including impacted media defined vertically and horizontally by the presence of one or more constituents in concentrations exceeding the limiting SS, MO-1 RS, or MO-2 RS (depending on the option being implemented).

**“Beneficial Resource”** describes natural resources that are useful to human and ecological receptors. The state may establish statutes or regulations that identify certain environmental components, such as specific ground water or surface water sources, as a “Special Beneficial Resource,” or “Designated Beneficial Resource.” The beneficial resources then may be entitled to greater protection from contamination.

**“Constituents of Concern” (COC)** means the COPC’s that pose a significant risk.

**“Constituents of Potential Concern” (COPC)** means chemicals from hazardous waste and hazardous waste constituents that are potentially site related and have data of quality for use in the Screen or a site-specific risk assessment. The facility should compile a list of COPC’s for each release site based on existing sampling data, waste analysis reports, etc.

**“Conceptual Site Model” (CSM)** is part of the Data Quality Objective (DQO) process that presents a three-dimensional picture of site conditions at a discrete point in time that conveys what is known about the facility, releases, release mechanisms, contaminant fate and transport, exposure pathways, potential receptors, and risks. The information for the CSM is documented into six profiles. The CSM evolves as data gaps in the profiles become more complete, and will

be refined based upon results of site characterization data. The final CSM is documented in the Risk Management Plan (RMP).

**“CWA”** means Clean Water Act.

**“Corrective Action”** is an activity conducted to protect human health and the environment.

**“DNAPL”** a dense liquid not dissolved in water, commonly referred to as “free product.”

**“Department”** means the Louisiana Department of Environmental Quality (LDEQ).

**“EPA”** means the United States Environmental Protection Agency.

**“HSWA”** means the 1984 Hazardous and Solid Waste Amendments to RCRA.

**“Hazardous Constituent”** means any constituent identified in LAC 33:V.Chapter 31.Table 1, or any constituent identified in LAC 33:V.3325.Table 4.

**“LDEQ”** means the Louisiana Department of Environmental Quality.

**“LNAPL”** a light liquid not dissolved in water, commonly referred to as “free product.”

**“Operating Record”** means written or electronic records of all maintenance, monitoring, inspection, calibration, or performance testing—or other data as may be required—to demonstrate compliance with this permit, document noncompliance with this permit, or document actions taken to remedy noncompliance with this permit. A minimum list of documents that must be included in the operating record are identified at LAC 33:V.1529.B.

**“Permittee”** means CECOS International, Inc., 28422 Frost Road, Livingston, Louisiana 70754.

**“RCRA Permit”** means the full permit, with RCRA and HSWA portions.

**“RFA”** means RCRA Facility Assessment.

**“RFI”** means RCRA Facility Investigation.

**“Release”** means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping or disposing of hazardous wastes (including hazardous constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents).

**“SARA”** means Superfund Amendments and Reauthorization Action of 1986.

**“Solid Waste Management Unit” (SWMU)** means any discernable unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management

of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

**“Stabilization”** is an action taken for the purpose of controlling or abating threats to human health or the environment from releases or preventing or minimizing the further spread of contaminants while long-term remedies are pursued.

If, subsequent to the issuance of this permit, regulations are promulgated which redefine any of the above terms, the Administrative Authority may, at its discretion, apply the new definition to this permit.

All regulating citations are defined as being the regulations in effect on the date of issuance of this permit. New and/or amended regulations are not included as permit requirements until permit modification procedures as specified in Condition II.C. of the permit and LAC 33:V.321 are completed.



## **II. GENERAL PERMIT CONDITIONS**

### **II.A. DURATION OF PERMIT**

This permit is effective as of the date indicated on the accompanying signature page and shall remain in effect for a maximum period of ten (10) years from the effective date, unless suspended, modified, revoked and reissued or terminated for just cause.

### **II.B. EFFECT OF PERMIT**

This permit authorizes the permittee to conduct post-closure care and monitor groundwater in accordance with the conditions of this permit. The permittee is prohibited from any storage, treatment or disposal of hazardous waste not authorized by statute, regulation or this permit. Compliance with this permit, LAC 33:V.Subpart 1 and HSWA, constitutes compliance for purposes of enforcement, with Subtitle C of RCRA and Chapter 9 of the Louisiana Environmental Quality Act (Act). However, compliance with the terms of this permit does not constitute a defense to any order issued or any action brought under Section 3013 or Section 7003 of RCRA, or under Section 106 (a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) {42 U.S.C. 9606 (a)}.

In accordance with LAC 33:V.307.B and C, issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of State or local law or regulations.

### **II.C. PERMIT ACTIONS**

Any inaccuracies found in the permit application may be cause for revocation or modification of this permit. The permittee must inform the Administrative Authority of any deviation from, changes or inaccuracies in the information in the permit application.

The Administrative Authority may also suspend, modify, revoke and reissue, or terminate for cause when necessary to be protective of human health or the environment as specified in 40 CFR 270.41, 270.42, 270.43 or LAC 33:V.309.F, 311.A or 323. The Administrative Authority may modify the permit when the standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulation or by judicial decision after the permit was issued. The filing of a request for permit modification, revocation and reissuance, or termination or the notification of planned changes or anticipated noncompliance on the part of permittee does not stay the applicability or enforceability of any permit condition.

### **II.D. SEVERABILITY**

The conditions of this permit are severable and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

## **II.E. DUTIES AND REQUIREMENTS**

### **II.E.1. Duty to Comply**

The permittee shall comply with all conditions of this permit, except to the extent and for the duration such noncompliance may be authorized by an emergency permit. Any permit noncompliance, other than noncompliance authorized by an emergency permit (LAC 33:V.701), constitutes a violation of the LAC 33:V.Subpart 1 and the Environmental Quality Act and is grounds for enforcement action which may include permit termination, permit revocation and reissuance, permit modification, or denial of permit renewal application.

### **II.E.2. Duty to Reapply**

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must reapply for the permit as required by LAC 33:V.303.N and 309 no later than 180 calendar days before the permit expires.

### **II.E.3. Permit Extension**

This permit and all conditions herein will remain in effect beyond the permit's expiration date until the Administrative Authority issues a final decision on the re-application, provided the permittee has submitted a timely, complete new permit application as provided in LAC 33:V.309.B and 315.A.

### **II.E.4. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

### **II.E.5. Duty to Mitigate**

The permittee shall immediately take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit as required by LAC 33:V.309.D.

### **II.E.6. Proper Operation and Maintenance**

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related ancillary equipment) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or

auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

#### **II.E.7. Duty to Provide Information**

The permittee shall furnish to the Administrative Authority, within a reasonable time, any information which the Administrative Authority may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Administrative Authority upon request, copies of records required by this permit.

#### **II.E.8. Inspection and Entry**

The permittee shall allow the Administrative Authority or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

**II.E.8.a.** enter upon the permittee's premises where a regulated activity is located or conducted, or where records must be maintained under the conditions of this permit;

**II.E.8.b.** have access to and copy, at reasonable times, any records that must be maintained under the conditions of this permit;

**II.E.8.c.** inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operation regulated or required under this permit; and

**II.E.8.d.** sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Administrative Authority any substances or parameters at any location.

#### **II.E.9. Sample Monitoring and Records**

**II.E.9.a.** Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of 40 CFR Part 261. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, "SW-846", latest revision; Manual of Ground Water Quality Sampling Procedures, 1981, EPA-600/2-81-160, as revised; Procedures Manual for Ground Water Monitoring at Solid Waste Disposal Facilities, 1977, EPA-530/SW-611, as revised; or an equivalent method.

**II.E.9.a.(1).** Permittee will notify the administrative authority at least seven (7) days prior to conducting any groundwater sampling so that a representative may be present if necessary.

**II.E.9. Records of monitoring information shall include:**

**II.E.9.b.(1)** the date, exact place, and time of sampling or measurements;

**II.E.9.b.(2)** the name(s) and signature(s) of the individual(s) who performed the sampling or measurements;

**II.E.9.b.(3)** the date(s) analyses were performed;

**II.E.9.b.(4)** the name(s) and signature(s) of the individual(s) who performed the analyses;

**II.E.9.b.(5)** the analytical techniques or methods used;

**II.E.9.b.(6)** the results of such analyses; and

**II.E.9.b.(7)** associated quality assurance performance data.

**II.E.9.c. Laboratory Quality Assurance/Quality Control**

In order to ensure the accuracy, precision, and reliability of data generated for use, the permittee shall submit a statement, certified as specified in LAC 33:V.513 and included in the annual report, indicating that:

**II.E.9.c.(1)** any commercial laboratory providing analytical results and test data to the LDEQ required by this permit is accredited by the Louisiana Environmental Laboratory Accreditation Program (LELAP) in accordance with LAC 33:I, Subpart 3, Chapter 45. Laboratory data generated by commercial laboratories not accredited under LELAP will not be accepted by the LDEQ.

LAC 33:I, Subpart 3 (Chapters 45-49) provides requirements for the accreditation program. Regulations and a list of labs that have applied for accreditation are available on the LDEQ website <http://cms/portal/tabid/2925/default.aspx>.

In accordance with LAC 33:I.4501, the requirements for LELAP accreditation applies whenever data is:

- submitted on behalf of a facility;
- required as part of a permit application;
- required by order of the LDEQ;
- required to be included in a monitoring report submitted to the LDEQ;
- required to be submitted by contract; or
- otherwise required by the LDEQ regulations.

This includes, but is not limited to data from RCRA Trial Burns, Risks Burns, Risk Assessments, MACT Comprehensive Performance Tests, and data used for continuing compliance demonstrations.

**II.E.9.c.(2)** If the permittee decides to use their own in-house laboratory for test and analysis, the laboratory is not required to be accredited by LELAP. However, the laboratory must document and submit for approval, quality assurance/quality control procedures that are commensurate with requirements in LAC 33:I.Subpart 3, Laboratory Accreditation.

**II.E.9.c.(3)** For approval of equivalent testing or analytical methods, the permittee may petition for a regulatory amendment under LAC 33:V.105.I and LAC 33:I.Chapter 9. In cases where an approved methodology for a parameter/analyte is not available or listed, a request to utilize an alternate method shall be submitted to the Administrative Authority for approval. Documentation must be submitted to the LDEQ that will verify that the results obtained from the alternate method are equal to or better than those obtained from EPA-accepted methods, as well as those deemed equivalent by the LDEQ.

#### **II.E.10. Retention of Records**

The permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations for the active life of the facility and for the post-closure care period.

The permittee shall maintain records through the active life of the facility (including operation, closure and post-closure periods) as required by LAC 33:V.309.J and LAC 33:V.1529.A, B, and C. All records, including plans, must be furnished upon request and made available at all reasonable times as required by LAC 33:V.1529.C.

File copies shall be kept for LDEQ inspection for a period of not less than three years as required by LAC 33:V.317.B.

The permittee shall, for the life of the permit, maintain records of all data used to complete the application for this permit and any supplemental information submitted under the Louisiana Hazardous Waste Control Law (LA. R.S. 30:2171 et seq.).

Permittee shall notify the administrative authority no later than sixty (60) days prior to the destruction of any records.

**II.E.11. Notices of Planned Physical Facility Changes**

The permittee shall give notice to the Administrative Authority, as soon as possible, of any planned physical alterations or additions to the permitted facility, in accordance with LAC 33:V.309.L.1.

**II.E.12. Physical Facility after Modification**

For a closed unit being modified, the permittee may not manage hazardous waste in the modified portion of the closed unit until:

**II.E.12.a.** the permittee has submitted to and received approval from the Administrative Authority, by certified mail or hand delivery, a letter signed by the permittee and an independent registered professional engineer stating that the unit is complete and has been constructed or modified in compliance with the permit; and

**II.E.12.b.** the Administrative Authority has inspected the modified unit following a request to make final inspection by the permittee and finds it is in compliance with the conditions of the permit and all applicable sections of LAC 33:V.Subpart 1, and has issued an Order to Proceed. The permittee may then commence treatment, storage, or disposal of hazardous waste.

**II.E.13. Anticipated Noncompliance**

The permittee shall give advance notice to the Administrative Authority of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

**II.E.14. Transfer of Permits**

This permit may be transferred to a new owner or operator only if it is modified or revoked and reissued pursuant to LAC 33:V.309.L.4, 321.B, 321.C.4, and 1531.

**II.E.15. Compliance Schedules**

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date (LAC 33:V.309.L.6).

**II.E.16. Emergency Unauthorized Discharge Notification**

In accordance with LAC 33:I.3915, in the event of an unauthorized discharge that results in an emergency condition (an emergency condition is any condition which could be reasonably expected to endanger the health and safety of the public, cause significant adverse impact to the land, water, or air environment, or cause severe damage to



property), the permittee shall notify the DPS (Department of Public Safety) 24-hour Louisiana Emergency Hazardous Materials Hotline by telephone at (225) 925-6595 immediately, but in no case later than one (1) hour after learning of the discharge. The DPS 24-hour Louisiana Emergency Hazardous Materials Hotline will subsequently notify the Department regarding the details of the discharge.

#### **II.E.17. Non-Emergency Unauthorized Discharge Notification**

In accordance with LAC 33:I.3917, in the event of an unauthorized discharge that exceeds a reportable quantity specified in LAC 33:I.Chapter 39.Subchapter E and/or results in contamination of the groundwaters of the state but does not result in an emergency condition, the permittee shall promptly notify the Department within twenty-four (24) hours after learning of the discharge. Notification shall be made to the Office of Environmental Compliance, Emergency and Radiological Services Division, Single Point of Contact (SPOC) in accordance with the procedure and content requirements specified in LAC 33:I.3923.

#### **II.E.18. Unauthorized Discharge to Groundwater Notification**

In accordance with LAC 33:I.3919, in the event of an unauthorized discharge resulting in contamination of groundwaters of the state by moving in, into, within or on any saturated subsurface strata, the permittee shall promptly notify the Department within twenty-four (24) hours after learning of the discharge. Notification shall be made to the Office of Environmental Compliance, Emergency and Radiological Services Division, SPOC in accordance with the procedure and content requirements specified in LAC 33:I.3923.

#### **II.E.19. Written Notification Reports for Unauthorized Discharges**

The permittee shall submit written reports to the SPOC for any unauthorized discharges requiring notification under Conditions II.E.16, II.E.17 or II.E.18 of this permit. The written report shall be submitted in accordance with the procedure and content requirements specified in LAC 33:I.3925.

#### **II.E.20. Noncompliance Reporting**

The permittee shall report orally within twenty-four (24) hours any noncompliance with the permit not reported under Condition II.E.16 or Condition II.E.17 of this permit that may endanger the human health or the environment. This report shall include at minimum the following information:

**II.E.20.a.** information concerning the release of any hazardous waste that may endanger public drinking water supplies; and

**II.E.20.b.** information concerning the release or discharge of any hazardous waste, or of a fire or explosion at the facility, that could threaten the environment

or human health outside the facility. The description of the occurrence and its cause shall include:

**II.E.20.b.(1)** name, address, and telephone number of the owner or operator;

**II.E.20.b.(2)** name, address, and telephone number of the facility;

**II.E.20.b.(3)** date, time, and type of incident;

**II.E.20.b.(4)** name and quantity of materials involved;

**II.E.20.b.(5)** the extent of injuries, if any;

**II.E.20.b.(6)** an assessment of actual or potential hazard to the environment and human health outside the facility, where this is applicable; and

**II.E.20.b.(7)** estimated quantity and disposition of recovered material that resulted from the incident.

#### **II.E.21. Follow-up Written Report of Noncompliance**

The permittee shall provide a written submission within five (5) days after the time the permittee becomes aware of any noncompliance which may endanger human health or the environment not reported under Condition II.E.20 of this permit. The written submission shall contain a description of the noncompliance and its cause; the periods of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. If the Administrative Authority waives the requirement, then the permittee submits a written report within fifteen (15) days after the time the permittee becomes aware of the circumstances, as required by LAC 33:V.309.L.7.

#### **II.E.22. Other Noncompliance**

The permittee shall report all other instances of noncompliance not otherwise required to be reported above, at the time required monitoring reports are submitted. The reports shall contain the information listed in Condition II.E.20 of this permit.

#### **II.E.23. Other Information**

Whenever the permittee becomes aware that it failed to submit any relevant facts in the permit application, or that it submitted incorrect information in a permit application, or in any report to the Administrative Authority, the permittee shall promptly submit such facts or information.

**II.E.24. Signatory Requirement**

All applications, reports or other information submitted to the Administrative Authority shall be signed and certified according to LAC 33:V.507, 509, 511, and 513.

**II.E.25. Schedule of Compliance**

**II.E.25.a.** Within thirty (30) days after the effective date of the this permit, permittee shall submit a Revised RCRA Part A Permit Application form.

**II.E.25.b.** Within ninety (90) days after the effective date of this permit, permittee shall submit a Notice of Intent (NOI) in accordance with the Corrective Action Strategy (CAS) permit Condition VIII.B, to utilize the CAS guidance and/or process to evaluate the need for corrective action.

**II.E.26. Additional Operating Standards (RESERVED)****II.E.27. Updated Documents to Be Submitted Prior to Operation (RESERVED)****II.E.28. Documents to Be Maintained at Facility Site**

**II.E.28.a.** Until post-closure is completed and certified by an independent registered professional engineer, the permittee shall maintain at the facility the following documents and any amendments, revisions, and modifications to these documents. Any revision or changes shall be submitted with the annual report unless previously submitted.

**II.E.28.a.(1)** Waste analysis plan submitted in accordance with LAC 33:V. 1519 (see Attachment 1).

**II.E.28.a.(2)** Personnel training plan submitted in accordance with LAC 33:V.1515 (see Attachment 1).

**II.E.28.a.(3)** Contingency plan submitted in accordance with LAC 33:V.1513 (see Attachment 1).

**II.E.28.a.(4)** Arrangements with local authorities in accordance with LAC 33:V.1511.G. (see Attachment 1).

**II.E.28.a.(5)** Post-Closure plan submitted in accordance with LAC 33:V.3523 and any post-closure care requirements that may be required initially or through permit modifications in accordance with LAC 33:V.3523. (see Attachment 1).

**II.E.28.a.(6)** Cost estimate for facility post-closure care submitted in accordance with LAC 33:V.3709 and any post-closure cost estimate that

may be required initially or through permit modifications in accordance with LAC 33:V.3709 (see Attachment 1).

**II.E.28.a.(7)** Operating records plan as required by LAC 33:V.1529.

**II.E.28.a.(8)** Inspection plan developed in accordance with LAC 33:V.517.G and 1509.B. (see Attachment 1)

**II.E.28.a.(9)** Security plan developed in accordance with LAC 33:V.1507. (see Attachment 1)

**II.E.28.a.(10)** Sampling and Analysis plan developed in accordance with LAC 33:V. Chapter 33 (see Attachment 1).

**II.E.28.b.** All proposed amendments, revisions and modifications to any plan or cost estimates required by this permit shall be submitted to the Administrative Authority for approval.

#### **II.E.29. Annual Report**

An annual report shall be submitted covering all hazardous waste units and their activities during the previous calendar year as required by LAC 33:V.1529.D.

#### **II.E.30. Manifest**

The permittee shall report manifest discrepancies and unmanifested waste as required by LAC 33:V.309.L.8 and 9.

#### **II.E.31. Emissions**

Emissions from any hazardous waste facility shall not violate the Louisiana Air Quality Regulations. If air quality standards are exceeded, the site will follow air regulation protocol.

#### **II.E.32. Water Discharges**

Water discharges from any hazardous waste facility shall not violate the Louisiana Water Quality Regulations. If water standards are exceeded, the site will follow water quality regulation protocol.

#### **II.E.33. Non-Listed Hazardous Waste Facilities**

This permit is issued for those hazardous waste facilities listed in Condition IV (Permitted Closed Post-Closure Units). If the permittee determines that an unpermitted hazardous waste facility exists, the permittee must immediately notify the Administrative Authority in accordance with Condition II.E.23 of the General Permit Conditions.

**II.E.34. Compliance With Land Disposal Restrictions**

The permittee shall comply with those land disposal restrictions set forth in LA. R.S. 30:2193, all regulations promulgated there under, and the HSWA portion of this permit (Conditions VII and VIII).

**II.E.35. Establishing Permit Conditions**

Permits for facilities with pre-existing groundwater contamination are subject to all limits, conditions, remediation and corrective action programs designated under LAC 33:V.311.D and LAC 33:V.3303.

**II.E.36. Obligation for Corrective Action**

Owners or operators of hazardous waste management units must have all necessary permits during the active life of the unit and for any period necessary to comply with the corrective action requirements in Condition VIII of this permit. The facility is obligated to complete facility-wide corrective action regardless of the operational status of the facility.

**II.E.37. Attachments and Documents Incorporated by Reference**

All attachments and documents required by this permit, including all plans and schedules, are incorporated, upon approval by the Administrative Authority, into this permit by reference and become an enforceable part of this permit. Since required items are essential elements of this permit, failure to submit any of the required items or submission of inadequate or insufficient information may subject the permittee to enforcement action, which may include fines, suspension, or revocation of the permit.

Any noncompliance with approved plans and schedules shall be termed noncompliance with this permit. Written requests for extension of due dates for submittals may be granted by the Administrative Authority.

If the Administrative Authority determines that actions beyond those provided for, or changes to what is stated herein are warranted, the Administrative Authority may modify this permit according to procedures in LAC 33:V.321.

### **III. GENERAL POST-CLOSURE CONDITIONS**

#### **III.A. DESIGN AND OPERATION OF THE POST-CLOSURE UNIT**

**III.A.1.** The permittee must maintain all permitted closed post-closure units to minimize the possibility of a fire, explosion, or any unauthorized sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or water that could threaten human health or the environment.

**III.A.2.** The permittee must not manage any new wastes.

#### **III.B. REQUIRED NOTICE (RESERVED)**

#### **III.C. GENERAL WASTE ANALYSIS**

This section applies only to recovered contaminated groundwater and any collected leachate that is to be treated onsite or shipped offsite for storage and/or treatment. Other wastes generated during post-closure activities or other plant operations that are stored onsite for less than ninety (90) days and shipped off-site for treatment and/or disposal must be managed in accordance with LAC 33.V, Chapters 11, 13, 22, and 39, as applicable to generators of hazardous waste. The permittee shall provide the following updated information.

**III.C.1.** The permittee shall review the waste analysis plan annually and report to the administrative authority in the annual report whether any revision is required to stay abreast of changes in EPA methods and/or state regulatory provisions.

**III.C.2.** Annually the permittee shall submit in a report, due March 1 each year, certified as provided for in LAC 33:V.513, a review and evaluation of the performance of the laboratory Quality Assurance/Quality Control (QA/QC) program. This evaluation may be included in the annual report.

**III.C.3.** The permittee shall, at a minimum, annually re-characterize all waste streams (including groundwater from all wells) that are shipped off site or treated on-site. This re-characterization shall provide a means of detecting changes in concentrations of chemical constituents, appearance of new constituents, and whether any revision is required to stay abreast of changes in EPA methods and/or State regulatory provisions. The permittee shall report to the Administrative Authority and make all necessary revisions within thirty (30) calendar days following its report.

**III.C.4.** The permittee shall analyze all samples from all recovery wells using a laboratory certified by LELAP.



### **III.D. SECURITY**

The permittee must comply with the security provisions of LAC 33:V.1507, as referenced in Attachment 1.

### **III.E. GENERAL INSPECTION REQUIREMENTS**

The permittee must follow the Inspection Plan referenced in Condition II.E.28.a.(8) and Attachment 1. The permittee must remedy any deterioration or malfunction discovered by an inspection as required by LAC 33:V.1509.C. Records of inspections must be kept as required by LAC 33:V.1509.D. The inspection schedule must include the regulatory requirements of LAC 33:V.517.G, 1509.A and B, and 3523.B.

### **III.F. PERSONNEL TRAINING**

The permittee must comply with the personnel training of LAC 33:V.1515.A, B, and C, as referenced in Attachment 1. The permittee shall maintain all training documents and records as required by LAC 33:V.1515.D.

### **III.G. GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE**

The permittee must take precautions as required by LAC 33:V.1517 to prevent accidental ignition or reaction of ignitable or reactive wastes.

### **III.H. LOCATION STANDARDS**

**III.H.1.** The permittee has furnished evidence that it is in compliance with seismic standards as required by LAC 33:V.517.T.

**III.H.2.** The permittee must not manage any hazardous waste on any portion of the property that lies within the 100 year flood plain (as identified in the Flood Insurance Rating Map) unless such areas are raised above this flood level or other means (e.g., levees) are provided to protect such areas from washouts, overtopping by wave action, soil erosion or other effects of such a flood as required by LAC 33:V.1503.B.3. Such site improvements must be certified by independent licensed professional engineers and approved by LDEQ prior to any hazardous waste and/or hazardous waste units being placed thereon.

### **III.I. PRECIPITATION RUN-ON AND RUN-OFF**

The permittee must provide for the control by diversion or treatment of run-on and run-off resulting from a rainfall in twenty-four (24) hours from a twenty-five (25)-year storm event as per LAC 33:V.1503.B.2.

### **III.J. HURRICANE EVENTS**

The permittee must initiate those applicable portions of the Contingency Plan during a hurricane as well as appropriate actions required by LAC 33:V.1507, 1509 and 1511.

### **III.K. PREPAREDNESS AND PREVENTION**

#### **III.K.1. Required Equipment**

At a minimum, the permittee must install and maintain the equipment set forth in the Contingency Plan, as required by LAC 33:V.1511.C.

#### **III.K.2. Testing and Maintenance of Equipment**

The permittee must test and maintain the equipment specified in Condition III.K.1 to insure its proper operation in time of emergency. The testing and maintenance of the equipment must be documented in the operating record.

#### **III.K.3. Access to Communications or Alarm Systems**

The permittee must maintain access to the communications or alarm system as required by LAC 33:V.1511.E.1 and 1511.E.2.

#### **III.K.4. Arrangements with Local Authorities**

The permittee shall document in the annual report that the requirements of LAC 33:V.1511.G have been met. This documentation shall include those state and local agencies involved and those facilities and operations covered. Documentation of written arrangements with state and local agencies shall also be included in this report. Where state or local authorities decline to enter into such arrangements, the permittee must document the refusal in the operating record.

### **III.L. CONTINGENCY PLAN**

#### **III.L.1. Implementation of Plan**

The permittee must immediately carry out the provisions of the Contingency Plan, and follow the emergency procedures described by LAC 33:V.1513.F whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that threaten or could threaten human health or the environment.

#### **III.L.2. Copies of Plan**

The permittee must comply with the requirements of LAC 33:V.1513.C.

**III.L.3. Amendments to Plan**

The permittee must review and immediately amend, if necessary, the Contingency Plan as required by LAC 33:V.1513.D.

**III.L.4. Emergency Coordinator**

The permittee must comply with the requirements of LAC 33:V.1513.E, and 322.B.6 concerning the emergency coordinator.

**III.M. MANIFEST SYSTEM**

The permittee shall comply with the manifest requirements of LAC 33:V.Chapter 11.

**III.N. RECORD KEEPING AND REPORTING****III.N.1. Operating Record**

The permittee shall maintain a written operating record at the facility in accordance with LAC 33:V.1529.A, B, C.

**III.N.2. Annual Report**

The permittee must comply with the annual report requirements of LAC 33:V.1529.D.

**III.N.3. Operations Manual**

The permittee shall compile and keep current an operations manual covering all aspects of the permittee's treatment, storage and disposal facilities.

**III.O. POST-CLOSURE****III.O.1. Post-closure Care**

The permittee must manage the closed units in accordance with the post-closure plan, this permit, and LAC 33:V. Chapter 35, Subchapter B.

**III.O.2. Amendment to Post-closure Permit**

The permittee shall amend the post-closure plan and/or permit when necessary, in accordance with LAC 33:V.3523.D. and LAC 33:V.321.

### **III.O.3. Post-Closure Maintenance**

After final closure, the permittee must comply with all post-closure requirements contained in LAC 33:V.3519 through 3527, including maintenance and monitoring throughout the post-closure care period specified in LAC 33:V.3521.A.1. The permittee must maintain all units in post-closure according to the requirements in Condition V.B.

### **III.O.4. Post-Closure Restrictions**

The Administrative Authority may require, at partial and final closure, continuation of any of the security requirements of LAC 33:V.1507, during part or all of the post-closure care period when access by the public or domestic livestock may pose a hazard to human health.

### **III.O.5. Post-Closure Property or Site Use**

**III.O.5.a.** Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liner(s), or any other components of the containment system, or the function of the permitted closed unit's monitoring systems, unless the Administrative Authority finds that the disturbance:

**III.O.5.a.(1)** is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

**III.O.5.a.(2)** is necessary to reduce a threat to human health or the environment.

**III.O.5.b.** Any post-closure activity other than that specified in this permit must have prior approval of the Administrative Authority.

### **III.O.6. Post-Closure Contact**

The permittee must provide the name, address, and phone number of the person or office to contact about the permitted post-closure units during the post-closure care period.

### **III.O.7. Certification of Completion of Post-Closure Care**

No later than sixty (60) days after completion of the established post-closure care period for the specified unit, the permittee must submit to the Administrative Authority, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit(s) was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the permittee and an independent registered professional engineer. Within 60 days after receipt of the certification the Administrative Authority will notify the owner or operator that he is no longer required to maintain financial assurance for post-closure care of that unit, unless the Administrative

Authority has reason to believe that post-closure care was not conducted in accordance with the approved post-closure plan.

The certification of post-closure care shall include the certification statement found in the LAC 33:V.513.A or the current certification statement in the Louisiana hazardous waste regulations at the time of completion of post-closure care.

### **III.P. COST ESTIMATE FOR CARE OF THE POST-CLOSURE UNIT**

**III.P.1.** The permittee must maintain a cost estimate for the permitted and associated structures as required by LAC 33:V.3709.

**III.P.2.** The permittee must maintain and adjust the post-closure cost estimate for inflation, as specified in LAC 33:V.3709.B, C, D, and for other circumstances that increase the cost of post-closure.

**III.P.3.** The permittee must base all post-closure cost estimates on the assumption that a third party contractor performs post-closure monitoring and maintenance in accordance with LAC 33:V.3709.A.

**III.P.4.** The permittee must consider the inventory and process conditions and their impact on the post-closure cost estimate for any resubmittal.

**III.P.5.** During the life of the facility, the permittee must keep, at the facility, its latest post-closure cost estimates, as necessary, to comply with LAC 33:V.3709.D.

**III.P.6.** Throughout the active life of the facility, the permittee must adjust and revise its post-closure cost estimates, as necessary, to comply with the provisions of LAC 33:V.3709.

### **III.Q. FINANCIAL ASSURANCE FOR THE POST-CLOSURE UNIT**

Throughout the post-closure care period, the permittee must provide updates for its financial assurance mechanisms, as necessary, to comply with the provisions of LAC 33:V.3711.

### **III.R. LIABILITY REQUIREMENTS**

(RESERVED)

### **III.S. INCAPACITY OF THE PERMITTEE**

The permittee must comply with LAC 33:V.3717 whenever bankruptcy is initiated for the permittee or its institutions providing financial assurance. If insurance is used for compliance with LAC 33:V.3715, the permittee must immediately notify the Administrative Authority if the insurance company is placed in receivership. The permittee must establish other financial assurance or liability coverage within sixty (60) days after such an event.

### **III.T. POST-CLOSURE NOTICES**

If the permittee or any subsequent permittee of the land upon which this hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner or contaminated soils, he must request a modification to the post-closure permit in accordance with the applicable requirements in LAC 33:V, Chapters 3 and 7. The permittee must demonstrate that the removal of hazardous wastes will satisfy the criteria of LAC 33:V.3521. By removing hazardous waste, the permittee may become a generator of hazardous waste and must manage it in accordance with all applicable requirements of LAC 33:V, Subpart 1. If he is granted a permit modification or otherwise granted approval to conduct such removal activities, the permittee may request that the Administrative Authority approve either:

**III.T.1.** the removal of the notation on the deed to the facility property or other instrument normally examined during title search; or

**III.T.2.** the addition of a notation to the deed or instrument indicating the removal of the hazardous waste.



#### IV. PERMITTED CLOSED UNITS

This permit is applicable only to the units listed below, which cover an area of approximately 65.79 of 385 acres at CECOS International, Inc., Livingston Parish, Louisiana. This permit also applies to any appurtenances associated with these units. The appurtenances are defined as any run-on/run-off control systems, leachate collection/leak detection systems, tanks, and/or piping and instrumentation associated with these regulated units. If any additional appurtenances are added in the future, they would be addressed through a permit modification as required by regulation and this permit.

**TABLE 1**  
**LIST OF CLOSED UNITS SUBJECT TO POST-CLOSURE PERMIT REQUIREMENTS**

UNIT NAME	UNIT TYPE	MAX CAPACITY AT CLOSURE	DATE CLOSED
SWECO 1	Closed Landfill	49,778 cubic yards	02/15/1978
SWECO 2	Closed Landfill	49,778 cubic yards	03/30/1978
SWECO 3	Closed Landfill	49,778 cubic yards	05/19/1978
BFI 1	Closed Landfill	65,333 cubic yards	01/16/1979
BFI 2	Closed Landfill	52,556 cubic yards	04/06/1979
BFI 3	Closed Landfill	43,167 cubic yards	06/20/1979
BFI 4	Closed Landfill	55,000 cubic yards	10/22/1979
BFI 5N	Closed Landfill	89,900 cubic yards	03/29/1980
BFI 5S	Closed Landfill	282,333 cubic yards	04/04/1984
BFI 6	Closed Landfill	112,830 cubic yards	08/28/1980
BFI 8	Closed Landfill	109,433 cubic yards	11/30/1980
BFI 9	Closed Landfill	229,452 cubic yards	07/08/1981
BFI 10	Closed Landfill	217,129 cubic yards	05/03/1982
BFI 11	Closed Landfill	217,129 cubic yards	01/03/1982
Cell 12	Closed Landfill	245,254 cubic yards	04/24/1987
Cell 12L	Closed Landfill	204,328 cubic yards	08/21/1986
Cell 13 Monofill	Closed Landfill	124,444 cubic yards	01/27/1987
Cell 14	Closed Landfill	303,489 cubic yards	09/28/1990
Cell 15	Closed Landfill	235,925 cubic yards	09/24/1987
Cell 16	Closed Landfill	210,648 cubic yards	08/08/1988

## **V. PERMIT CONDITIONS APPLICABLE TO PERMITTED CLOSED UNITS**

### **V.A. POST-CLOSURE CARE PERIOD**

The post-closure care period will be in effect for a minimum period of thirty (30) years, unless extended or shortened by the Administrative Authority, as specified in LAC 33:V.3521.A.1 and 2, Length of Post-Closure.

**V.A.1.** The post-closure care period began for each unit when the unit was closed in accordance with an approved closure plan and applicable regulations (see Table 1 for closure dates).

### **V.B. POST-CLOSURE MAINTENANCE**

After final closure, the owner or operator must comply with all post-closure requirements contained in LAC 33:V.3519 through 3527 and Condition III.O of this permit, including maintenance and monitoring throughout the post-closure care period specified in the permit under Condition V.A and LAC 33:V.3521.A.1. The owner or operator must:

**V.B.1.** for all permitted units, maintain the integrity and effectiveness of the final cover, including making repairs as necessary to correct the effects of settling, subsidence, erosion, or other events;

**V.B.2.** for all permitted units, maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of LAC 33:V, Chapter 33;

**V.B.3.** for all permitted units, manage a run-on and run-off control system to prevent erosion at and other damage to the final cover;

**V.B.4.** for all permitted units, manage and maintain the leachate collection systems and all associated ancillary equipment;

**V.B.5.** for all permitted units, maintain the cover with a final cover designed, constructed and maintained to:

**V.B.5.a.** provide long-term minimization of migration of liquids through the surface impoundments,

**V.B.5.b.** function with minimal maintenance at all permitted units,

**V.B.5.c.** promote drainage and minimize erosion or abrasion of the final cover at all permitted units,

**V.B.5.d.** accommodate settling and subsidence, as necessary, so that the cover's integrity is maintained for all permitted units, and

**V.B.5.e.** have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present at the surface impoundments.

**V.B.5.f.** protect and maintain surveyed benchmarks used in complying with LAC 33:V. Chapter 33.

**V.B.6.** The annual report shall include a post-closure activity report for the closed permitted units.

## **V.C. POST-CLOSURE RESTRICTIONS**

The Administrative Authority may require, at partial and final closure, continuation of any of the security requirements of LAC 33:V.1507, during part or all of the post-closure period when access by the public or domestic livestock may pose a hazard to human health.

The permittee must post warning signs at each entrance to the facility and, where appropriate or necessary, at each entrance to those areas covered by this permit, in accordance with LAC 33:V.3521.B and LAC 33:V.1507.K.

## **V.D. POST-CLOSURE USE OF PROPERTY**

**V.D.1.** Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the final cover, liner(s), or any other components of the containment system, or the function of the permitted closed unit's monitoring systems, unless the Administrative Authority find that the disturbance:

**V.D.1.a.** is necessary to the proposed use of the property and will not increase the potential hazard to human health or the environment; or

**V.D.1.b.** is necessary to reduce a threat to human health of the environment.

**V.D.2.** Any post-closure activity other than that specified in this permit must have prior approval of the Administrative Authority.

## **VI. GROUNDWATER PROTECTION**

### **VI.A. APPLICABILITY**

The regulations of LAC 33:V, Chapters 3, 5, 15, 25, 33, 35, and 37, and Louisiana Hazardous Waste Control Law Revised Statute R.S., 30:2171 of the Environmental Quality Act, R.S., 30:2001 et seq., and the provisions of this condition shall apply to groundwater protection programs at the units identified in Condition IV, Table 1 of this permit. All requirements of this condition must be satisfied and shall apply until the Administrative Authority has accepted the certification of completion of post-closure care required by regulation and under Condition III.O.7 of this permit. This includes compliance, closure, and post-closure care periods. If groundwater contamination is confirmed as a result of operations related to past or present hazardous waste management facilities associated with this site, the permittee shall establish, expand or continue, compliance and/or corrective action programs in accordance with the requirements of LAC 33:V.Chapter 33 and as subsequently directed by the Administrative Authority.

### **VI.B. REQUIRED PROGRAMS**

The regulated units referenced in Table 1 are under an ongoing Detection Monitoring Program. The Permittee must continue to conduct the Detection Monitoring Program per Condition VI.H of this permit using the existing monitoring system specified in Condition VI and as stated in the most current approved Groundwater Sampling and Analysis Plan (GWSAP) and Detection Monitoring Optimization Plan (DMOP) referenced in Attachment 1.

In the event any groundwater point of compliance monitoring wells in Table 2 or Table 3 of the approved GWSAP and DMOP exhibit statistically significant evidence of contamination as a result of a release from the regulated unit and as described in LAC 33:V.3317.F, the Permittee shall modify the permit in accordance with LAC 33:V.321 of this permit in order to establish a Compliance Monitoring Program (unless a demonstration under LAC 33:V.3317.G.6 has been satisfactorily documented by the Permittee) for the unit that was the source of the contamination. The establishment of concentration limits at the point of compliance does not exempt the Permittee from implementing corrective action to address contamination detected by monitoring wells that are not designated as point of compliance wells.

All wells and any associated piezometers described in the GWSAP and DMOP must be maintained, protected from moving equipment, and cannot be abandoned unless exempted from the program at a later date by the Administrative Authority, or unless the integrity of the well or piezometer is threatened. In such a case, it must be replaced with a new well, in conformance with a work plan approved by the Administrative Authority (see Condition VI.K – Construction and Abandonment of Monitoring Wells and Geotechnical Boreholes). The Permittee must include revised facility maps in the Annual Report, depicting all monitoring wells associated with the regulated units.

## **VI.C. GROUNDWATER PROTECTION STANDARD**

**VI.C.1.** The permittee must comply with conditions specified in this permit that are designed to insure that hazardous waste and hazardous waste constituents do not exceed the concentration limits (see Condition VI.D) in the uppermost permeable zones underlying the waste management areas, beyond or below the points of compliance (see Condition VI.E) during the compliance period (see Condition VI.F). The protection standard does not exempt the permittee from required evaluation regarding contamination detected by wells not assigned as groundwater compliance points.

**VI.C.2.** The permittee must utilize and maintain the present groundwater monitoring system described in this permit.

**VI.C.3.** The permittee must adhere to the Sampling and Analysis Plan referenced in Attachment 1.

## **VI.D. HAZARDOUS CONSTITUENTS, PARAMETERS, ANALYTICAL FREQUENCY AND CONCENTRATION LIMITS**

All groundwater monitoring wells and piezometers, and their sampling frequencies are shown in Tables 1 through 3 in the GWSAP (Attachment 2) and the DMOP referenced in Attachment 1.

The Permittee is required to monitor the point of compliance wells specified in the GWSAP and DMOP for the hazardous constituents (or parameters) specified in Table 1 of the GWSAP (Attachment 2). Groundwater at the point of compliance shall be monitored to detect potential changes in groundwater quality as compared against groundwater background and/or practical quantitation limit (PQL) concentrations (concentration of constituents in groundwater that represent the quality of groundwater not contaminated by hazardous waste activity at the site). The concentrations of hazardous constituents from point of compliance wells shall be compared against data on groundwater background and/or PQL concentrations in order to determine whether there is statistical significant evidence of in an increase in the concentration of hazardous constituents over background and/or PQL. If hazardous waste constituents are "detected" (as defined in LAC 33:V.3303.A.1) at the point of compliance as a result of a release from the regulated unit, the Permittee shall submit a permit modification (in accordance with LAC 33:V.321) to implement a Compliance Monitoring Program (unless a demonstration under LAC 33:V.3317.G.6 has been satisfactorily documented by the Permittee). At that time, the Administrative Authority shall establish the groundwater protection standard defined in LAC 33:V.3305.

## **VI.E. POINT OF COMPLIANCE**

The point of compliance (POC) at which the groundwater protection standard of LAC 33:V.3305.A applies, and at which monitoring must be conducted, are the vertical intervals intercepted by the wells identified in Table 1 and 2 of the GWSAP and required by Condition VI.C.3. The horizontal limit of compliance must be the surface following an imaginary line connecting the risers of monitoring wells listed as Point of Compliance wells in Table 1 and 3 of

the GWSAP unless amended through permit modifications by the Administrative Authority in the future.

If hazardous constituents are detected at the point of compliance (as defined in LAC 33:V.3303.A.1) as a result of a release from a regulated unit, then the groundwater protection standard of LAC 33:V.3305.A shall apply to wells at the point of compliance and beyond. If hazardous constituents are detected in the upper permeable zone underlying the waste management area, the next vertical aquifer or permeable zone must also be monitored.

If the concentration of any hazardous constituents exceed the groundwater protection standard (as described in LAC 33:V.3303.A.2) as a result of a release from the regulated unit, the Permittee shall institute a Corrective Action Program in accordance with LAC 33:V.3317.G. During the Corrective Action Program (i.e., until such time as hazardous constituents are no longer detected above the groundwater protection standard at the point of compliance and beyond), the groundwater quality at each monitoring well (including point of compliance wells, plume defining wells and recovery wells) identified in Table 3 must be monitored in order to determine the effectiveness of the corrective action. Additional monitoring wells may be installed, as required.

#### **VI.F. COMPLIANCE PERIOD**

In the event the Permittee is required to establish a groundwater protection standard associated with a Compliance Monitoring Program/Corrective Action Program for a regulated unit, a compliance period shall be established in accordance with LAC 33:V.3313.

The compliance period during which the groundwater protection standard of LAC 33:V.3305.A applies is until the Administrative Authority has accepted the certification of completion of post-closure care required by regulation and under Condition III.O.7. of this permit. However, if a corrective action program has been implemented, the compliance period can not end until after the permittee has demonstrated that the corrective action has been effectively implemented and the groundwater protection standard of LAC 33:V.3305.A has not been exceeded for a period of three (3) consecutive years.

#### **VI.G. GENERAL REQUIREMENTS**

**VI.G.1.** The permittee's groundwater monitoring system for the previously identified hazardous waste management facilities must consist of all wells as listed in Table 1 through Table 3 of the GWSAP, unless changed in the future by the Administrative Authority through permit modification.

**VI.G.2.** The permittee must maintain the structural and mechanical integrity of all wells and provide protection from accidental damage and surface infiltration, as well as implement a monitoring well inspection schedule. A written report on damage to any well must be submitted to the Administrative Authority in accordance with Condition II.E.21 of this permit.

**VI.G.3.** Up-gradient wells must always yield groundwater samples from the uppermost water bearing zone that are representative of groundwater that has not been affected by possible leakage from the waste management units. Down-gradient and vertical point of compliance wells must yield groundwater samples from the water bearing zones that represent the quality of groundwater beneath the facilities that flows to the points of compliance.

**VI.G.4.** The permittee must conform to the sampling and analysis requirements listed in Conditions VI.C and as required by LAC 33:V.3315.

**VI.G.5.** At least once every two years, each well must be measured for total depth and depth to water on the same day and prior to purging. Measurements must be to the nearest 0.1 foot, and the values must be recorded in the field notebook and reproduced and submitted in the Groundwater Annual Report. If 10% of the screened interval is blocked by sediments, the well must be redeveloped prior to the next required sampling event.

**VI.G.6.** Each well must be purged by evacuation by removing a minimum of three casing volumes. The wells must be sampled immediately upon purging and/or when sufficient water for sampling has recharged the well. Other techniques (e.g., micro-purging) must be approved by the Administrative Authority prior to use in monitoring or corrective action programs. (Micro-purging may be allowed with the approval of the Administrative Authority.) Purging methods must be consistent throughout the life of the permitted closed unit. If any groundwater well is purged to dryness, the well must be sampled immediately upon sufficient recharge. Additionally, if any well goes dry, it will be necessary to evaluate the integrity of the well and determine if redevelopment is necessary.

**VI.G.7.** Samples must be withdrawn using dedicated or adequately cleaned equipment for each well. No equipment or method may be used that will chemically alter or influence the sample. Sampling devices other than bailers must be approved by the Administrative Authority prior to use in monitoring or corrective action programs. Care must be taken to avoid placing clean sampling equipment on the ground or on any contaminated surface. Sampling methods and equipment must be compatible throughout the life of the permitted closed unit.

**VI.G.8.** The permittee must measure as applicable the indicators of groundwater contamination, which will be used to indicate well integrity and possible groundwater contamination. The results of these analyses must be recorded in the field log book and interpreted.

**VI.G.9.** A chain of custody protocol must be employed that will allow for tracking possession and handling of samples from the time of collection through laboratory



analysis. All sample containers must be labeled to prevent misidentification, have proper seals, and indicate the test parameters required.

**VI.G.10.** Sample preservation, handling and analysis must meet of the specifications of LAC 33:V.3315.D and E and Test Methods for Evaluating Solid Waste Physical/Chemical Methods 3rd. Edition (EPA Publication Number SW-846, as amended) or an equivalent substitute (approved by the Administrative Authority prior to implementation). Containers, preservation methods and analytical limits are listed in Table 4 of the GWSAP (incorporated by reference in Attachment 1).

**VI.G.11.** The permittee must use one of the statistical procedures outlined in the most current approved facility Sampling and Analysis Plan or LAC 33:V.3315.H in determining whether background and/or PQL values or concentrations have been exceeded for the hazardous constituents specified in Table 1 and 3 of the GWSAP.

**VI.G.12.** Records of all sampling and analytical work must be maintained at the site during the life of the facilities, including post-closure care periods. An up-to-date field log book (or compilation of field sheets) must be kept at the site which documents (for each sample) the well identification number, total well depth, elevation of top of casing, water level, water color (visual), well evacuation procedures and equipment, sample withdrawal procedures and equipment, date, time sample identification numbers, field measurements (pH, specific conductance, etc.) and methods, name of collector, field observations, calculations of the standing water volume in the well, and the total volume evacuated.

## **VI.H. DETECTION MONITORING PROGRAM**

A Detection Monitoring Program is required whenever hazardous constituents have NOT been detected at the point of compliance for a regulated unit. The Permittee must continue or expand the Detection Monitoring Program in accordance with the requirements of LAC 33:V.3317 and as subsequently directed by the Administrative Authority until one of the following occurs: 1) a Compliance Monitoring Program and/or Corrective Action Program is required and the permit is modified accordingly; or 2) the post-closure monitoring period has ended for the regulated unit.

**VI.H.1.** The Permittee must utilize the groundwater monitoring system outlined in Conditions VI.B and VI.D and as required by LAC 33:V.3315 to monitor for indicator parameters (i.e., pH and specific conductance), waste constituents, or reaction products that provide a reliable indication of the presence of hazardous constituents.

**VI.H.2.** The Permittee shall sample the groundwater monitoring system according to the schedule specified in the GWSAP (Attachment 2) and DMOP referenced in Attachment 1.

**VI.H.3.** The Permittee must determine whether there is statistically significant evidence of contamination for any indicator parameter or hazardous constituent specified in Condition VI.D. Statistical methods shall conform to Condition VI.G.11.

**VI.H.4.** Within sixty (60) days after the sampling event, the Permittee shall have complete analytical results and shall have determined whether there is statistically significant evidence of contamination for any indicator parameter or hazardous constituent. In doing so, the Permittee shall compile a report containing the test results, the statistical comparative data, groundwater potentiometric maps, graphs, and copies of the field log book notes and chain of custody where appropriate. This information shall be maintained at the site as provided in Condition VI.G.12, except that statistically significant evidence of contamination must be forwarded for review by the Administrative Authority in accordance with Condition VI.H.5. Other reporting requirements shall be in accordance with Condition VI.L.

**VI.H.5.** If the Permittee determines that there is statistically significant evidence of contamination for indicator parameters or hazardous constituents at any point of compliance well, the Permittee must do the following:

**VI.H.5.a.** Notify the Administrative Authority of this finding in writing within seven (7) days. This notification must indicate what indicator parameters or hazardous constituents have shown statistically significant evidence of contamination.

**VI.H.5.b.** Immediately sample the groundwater in all point of compliance wells and determine whether constituents listed in LAC 33:V.3325, Table 4 (or site-specific subset of LAC 33:V.3325, Table 4 constituents previously approved by the Administrative Authority) are present, and if so, in what concentrations. This sampling shall be conducted within seven (7) days of the determination that there is statistically significant evidence of contamination, unless written approval of a different timeframe is given by the Administrative Authority. Within forty-five (45) days after the sampling event, the Permittee shall submit a report to the Administrative Authority detailing whether constituents are present, and if so, in what concentrations, and should indicate whether the Permittee intends on resampling for any of the constituents pursuant to Condition VI.H.5.c. The report shall contain the test results, the statistical comparative data (for those constituents having established background and/or PQL concentrations only), groundwater potentiometric maps, graphs, and copies of the field log book notes and chain of custody where appropriate.

**VI.H.5.c.** For any LAC 33:V.3325, Table 4 constituents (or site-specific subset of LAC 33:V.3325, Table 4 constituents previously approved by the Administrative Authority) found in the analysis pursuant to Condition VI.H.5.b above, the Permittee may resample within one month (or at an alternate site-specific schedule approved by the Administrative Authority) of the report submittal to the Administrative Authority and repeat the analysis for those constituents detected. Within forty-five (45) days after the sampling event, the Permittee shall submit a report to the Administrative Authority detailing whether constituents are present, and if so, in what concentrations. The report shall contain the test results, the statistical comparative data (for those constituents having established background

and/or PQL concentrations only), groundwater potentiometric maps, graphs, and copies of the field log book notes and chain of custody where appropriate.

**VI.H.5.c.(1).** If the results of the second analysis confirm the initial results, then these constituents will form the basis for compliance monitoring.

**VI.H.5.c.(2).** If the Permittee does not resample for the constituents found pursuant to Condition VI.H.5.b above, the constituents found during this initial analysis will form the basis for compliance monitoring.

**VI.H.5.d.** Submit to the Administrative Authority within ninety (90) days an application for a permit modification to establish a Compliance Monitoring Program. The application must include:

**VI.H.5.d.(1).** An identification of the concentration of any LAC 33:V.3325, Table 4 (or site-specific subset of LAC 33:V.3325, Table 4 constituents previously approved by the Administrative Authority) constituent detected in the groundwater at each point of compliance well;

**VI.H.5.d.(2).** Any proposed changes to the groundwater monitoring system necessary to meet the requirements of a Compliance Monitoring Program (LAC 33:V.3319) which shall also include the requirements for assessment;

**VI.H.5.d.(3).** Any proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods necessary to meet the requirements of a Compliance Monitoring Program (LAC 33:V.3319); and

**VI.H.5.d.(4).** For each hazardous constituent detected (as defined in LAC 33:V.3301.A.1) at the point of compliance, a proposed concentration limit under LAC 33:V.3309, or a notice of intent to seek an alternate concentration limit under LAC 33:V.3309.B. (All data necessary to justify an alternate concentration limit sought under LAC 33:V.3309.B must be submitted by the Permittee to the Administrative Authority within 180 days from the date of the confirmation of contamination).

**VI.H.5.e.** Submit to the Administrative Authority within 180 days an Engineering Feasibility Plan for a Corrective Action Program necessary to meet the requirement of LAC 33:V.3321. The plan will not be required if:

**VI.H.5.e.(1).** all hazardous constituents identified under Condition VI.H.5.b are listed in LAC 33:V.3309.A.3, Table 1, and their concentrations do not exceed the respective values given in that table; or

**VI.H.5.e.(2).** the Permittee has sought an alternate concentration limit under LAC 33:V.3309.B for every hazardous constituent identified under Condition VI.H.5.b.

**VI.H.5.f.** If the Permittee determines that there is a statistically significant difference for indicator parameters or hazardous constituents at any point of compliance well identified under Condition VI.H.3, the Permittee may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the groundwater. The Permittee may make a demonstration under this Condition in addition to, or in lieu of, submitting a permit modification application; however, the Permittee is not relieved of the requirement to submit a permit modification application within the time specified in Condition VI.H.5.d unless the demonstration made under this Condition successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration under this Condition the Permittee must:

**VI.H.5.f.(1).** Notify the Administrative Authority in writing within seven (7) days of determining statistically significant evidence of contamination that the Permittee intends to make a demonstration under this Condition;

**VI.H.5.f.(2).** Within ninety (90) days, submit a report to the Administrative Authority that demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from error in sampling, analysis, or evaluation;

**VI.H.5.f.(3).** Within ninety (90) days, submit to the Administrative Authority a permit modification application to make any appropriate changes to the Detection Monitoring Program; and

**VI.H.5.f.(4).** Continue to monitor in accordance with the established Detection Monitoring Program.

**VI.H.6.** If the Permittee determines that the Detection Monitoring Program no longer satisfies the requirements of this permit, the Permittee, within ninety (90) days, shall submit an application for a permit modification to make any appropriate changes to the program. Any time the Administrative Authority determines that the Detection Monitoring Program does not satisfy the requirements of this permit, the Permittee shall, within 90 days of notification of such determination, submit an application for a permit modification to make any appropriate changes to the program.

## **VII. COMPLIANCE MONITORING**

Subsequent to the Detection Monitoring Program (Condition VI.H), the permittee must conduct a Compliance Monitoring Program in accordance with LAC 33:V.3319 whenever hazardous waste constituents are confirmed in any monitoring well of the Detection Monitoring Program.

## **VI.J. CORRECTIVE ACTION PROGRAM (RESERVED)**

## **VI.K. CONSTRUCTION AND ABANDONMENT OF MONITORING WELLS AND GEOTECHNICAL BOREHOLES**

The construction and abandonment of groundwater monitoring wells must conform to the standards and guidelines specified in "**CONSTRUCTION OF GEOTECHNICAL BOREHOLES AND GROUNDWATER MONITORING SYSTEMS HANDBOOK**", dated May 2000 or most recent version ("Construction Handbook"). This document is printed by and available from the Louisiana Department of Transportation and Development (DOTD), Water Resources Section, P.O. Box 94245, Baton Rouge, Louisiana 70804-9245.

A work plan for the construction of a new well must be submitted to the Administrative Authority for approval as the entire groundwater monitoring system must be approved. Any required new well should be installed within thirty (30) days of approval of the work plan by the Administrative Authority. Upon completion of new or replacement well, a copy of DOTD-GW-1 S, DOTD Well Registration Short Form, is to be provided to the Administrative Authority.

The permittee must provide for the sealing of any vertical migration path resulting from exploratory boring, leachate collection or detection systems and/or groundwater monitoring programs as provided in LAC 33:V.3323. A work plan for the plugging and abandonment of a well must be submitted for approval by the Administrative Authority, whenever such migration pathways are discovered. Upon completion of well abandonment, a copy of DOTD-GW-2, DOTD Well Plugging and Abandonment Form, is to be provide to the Administrative Authority.

## **VI.L. REPORTING AND NOTIFICATION REQUIREMENTS**

### **VI.L.1. Semi-Annual Groundwater Report**

A semi-annual groundwater report must be prepared for each sampling event and submitted to the Administrative Authority within ninety (90) days of the sampling event. The report shall include the following:

**VI.L.1.a.** a table showing well number, well depth, interval screened, zone monitored, well diameter, screen and casing material (and the type of pump, if applicable) for all wells;

**VI.L.1.b.** a facility map showing all wells (up gradient, point of compliance, assessment, plume defining and recovery) and identifying zones in which wells are screened;

**VI.L.1.c.** a scaled potentiometric surface showing well locations, groundwater elevations with respect to mean sea level for each monitored zone;

**VI.L.1.d.** all analytical data, including QA/QC and chain of custody documentation of all sampling and analyses;

**VI.L.1.e.** a summary of all analytical data;

**VI.L.1.f.** comprehensive boring logs and field notes;

**VI.L.1.g.** a statistical method shall be used in evaluating data for each hazardous constituent, as approved by the Administrative Authority;

**VI.L.1.h.** graphical representation of the values of pH, conductance and the hazardous constituents including:

**VI.J.1.h.(1)** contaminant concentration isopleth maps;

**VI.J.1.h.(2)** contaminant concentration versus time graphs;

**VI.L.1.i.** a discussion of any significant changes in the data from the last reporting period;

**VI.L.1.j.** a discussion of the down time for any well or part of the system and actions taken to return the system to normal operations and maximum efficiency; and

**VI.L.1.k.** evaluation of the effectiveness and progress of any corrective action according to Condition VI.J.1.

## **VI.L.2. Annual Groundwater Report**

An annual groundwater report must be submitted each year no later than March 1, as required by LAC 33:V.1529.D.8. This report must summarize all groundwater activities for the preceding calendar year including an evaluation of the monitoring strategy in relation to the direction of groundwater flow and locations of wells associated with the facilities. Applicable calculations must also include groundwater flow contaminant migration rates (as applicable), statistical comparisons, and any other information as it regards corrective action required by this permit.

## **VI.L.3. Notification of Statistically Significant Evidence of Contamination**

The permittee must notify the Administrative Authority in accordance with Conditions VI.H, VI.I or VI.J when there is statistically significant evidence of contamination for chemical parameters or hazardous constituents.

#### VI.L.4. Notification of Release to SPOC

In the event of a release in, into, within, or on any groundwaters of the state, (i.e., any confirmation of contamination in any previously uncontaminated saturated subsurface strata) the permittee must notify the Department within twenty-four (24) hours of confirming statistically significant evidence of a release. Notification shall be made to the Office of Environmental Compliance, Emergency and Radiological Services Division, Single Point of Contact (SPOC) in accordance with LAC 33:V.309.L.7 and Condition II.E.18 of this permit. This requirement is in addition to other notification requirements to the Administrative Authority discussed in Conditions VI.H, VI.I or VI.J, and other Conditions, summarized in the table below.

Summary of Unauthorized Discharge /Contamination Notification Requirements				
Permit Condition	Type of Unauthorized Discharge	Type of Notification	Timing of notification	Contact
II.E.16	Emergency condition that endangers human health	Oral	Within one (1) hour	DPS Hotline 225-925-6595
II.E.20	Non-compliance that endangers drinking water supplies, fire, explosions	Oral	Within twenty four (24) hours	DEQ Single Point of Contact (SPOC); DPS Hotline
II.E.17	Non-emergency, exceeds reportable quantity	Oral	Within twenty four (24) hours	DEQ SPOC
II.E.18, VI.L.4	Statistically significant evidence of release into previously uncontaminated groundwater	Oral	Within twenty four (24) hours	DEQ SPOC
VI.H.5.a	Evidence of contamination in any point of compliance (POC) well	Written	Within seven (7) days	LDEQ Office of Environmental Services
II.E.22	Other non-compliance not listed in other conditions	Written	Written, in next scheduled monitoring report	LDEQ Office of Environmental Services



## **VII. GENERAL CONDITIONS PURSUANT TO THE HAZARDOUS AND SOLID WASTE AMENDMENTS**

### **VII.A. STANDARD CONDITIONS**

#### **VII.A.1. Waste Minimization**

Annually, by March 1, for the previous year ending December 31, the permittee shall enter into the operating record as required by LAC 33:V.1529.B.19, a statement certified according to LAC 33:V.513.A specifying that the permittee has a program in place to reduce the volume and toxicity of hazardous wastes generated by the facility's operation to the degree determined by the permittee to be economically practicable; and that the proposed method of treatment, storage, or practicable disposal method that is currently available to the permittee minimizes the present and future threat to human health and the environment. A current description of the program shall be maintained in the operating record and a copy of the annual certified statement shall be submitted to the Administrative Authority. The following criteria should be considered for the program:

**VII.A.1.a.** Any written policy or statement that outlines goals, objectives, and/or methods for source reduction and recycling of hazardous waste at the facility;

**VII.A.1.b.** Any employee training or incentive programs designed to identify and implement source reduction and recycling opportunities;

**VII.A.1.c.** An itemized list of the dollar amounts of capital expenditures (plant and equipment) and operating costs devoted to source reduction and recycling of hazardous waste;

**VII.A.1.d.** Factors that have prevented implementation of source reduction and/or recycling;

**VII.A.1.e.** Sources of information on source reduction and/or recycling received at the facility (e.g., local government, trade associations, suppliers, etc.);

**VII.A.1.f.** An investigation of additional waste minimization efforts that could be implemented at the facility. This investigation would analyze the potential for reducing the quantity and toxicity of each waste stream through production reformulation, recycling, and all other appropriate means. The analysis would include an assessment of the technical feasibility, cost, and potential waste reduction for each option;

**VII.A.1.g.** A flow chart or matrix detailing all hazardous wastes the facility produces by quantity, type, and building/area;

**VII.A.1.h.** A demonstration of the need to use those processes that produce a particular hazardous waste due to a lack of alternative processes or available technology that would produce less hazardous waste;

**VII.A.1.i.** A description of the waste minimization methodology employed for each related process at the facility. The description should show whether source reduction or recycling is being employed;

**VII.A.1.j.** A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years; and

**VII.A.1.k.** The permittee may meet the requirements for waste minimization by developing an Environmental Management System according to the EPA document, Integrated Environmental Management System Implementation Guide, EPA 744-R-00-011, October 2000, found on the EPA website at [www.epa.gov/opptintr/dfe/pubs/iems/iems\\_guide/index.htm](http://www.epa.gov/opptintr/dfe/pubs/iems/iems_guide/index.htm).

#### **VII.A.2. Dust Suppression**

Pursuant to LAC 33:V.4139.B.4, and the Toxic Substances Control Act, the permittee shall not use waste or used oil or any other material which is contaminated with dioxin, polychlorinated biphenyls (PCBs), or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment.

#### **VII.A.3. Failure to Disclose**

The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts at any time may be cause for termination or modification of this Permit in accordance with LAC 33:V.323.B.2 and 3.

#### **VII.A.4. Suspension, Modification, or Revocation and Reissuance, and Termination of Permit**

This Permit may be modified, revoked and reissued, or terminated for cause as specified in LAC 33:V.323. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the permittee, does not stay the applicability or enforceability of any permit condition.

**VII.A.4.a.** If the Administrative Authority tentatively decides to modify or revoke and reissue a permit under LAC 33:V.321.C. or 323, a draft permit shall be prepared incorporating the proposed changes. The Administrative Authority may request additional information and, in the case of a modified permit, may require the submission of an updated permit application.

**VII.A.4.b.** The permittee may initiate permit modification proceedings under LAC 33:V.321.C. All applicable requirements and procedures as specified in LAC 33:V.321.C shall be followed.

**VII.A.4.c.** Modifications of this Permit do not constitute a reissuance of the Permit.

#### **VII.A.5. Permit Review**

This Permit may be reviewed by the Administrative Authority five years after the date of permit issuance and may be modified as necessary as provided for in LAC 33:V.321.C. Nothing in this section shall preclude the Administrative Authority from reviewing and modifying the Permit at any time during its term.

#### **VII.A.6. Compliance with Permit**

Compliance with a RCRA permit during its term constitutes compliance, for purposes of enforcement, with subtitle C of RCRA except for those requirements not included in the permit which:

**VII.A.6.a.** Become effective by statute;

**VII.A.6.b.** Are promulgated under LAC 33:V.Chapter 22 restricting the placement of hazardous wastes in or on the land; or

**VII.A.6.c.** Are promulgated under LAC 33:V.Chapters 23, 25 and 29 regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of surface impoundment, waste pile, and landfill units. The leak detection system requirements include double liners, construction quality assurance (CQA) programs, monitoring action leakage rates, and response action plans, and will be implemented through the procedures of LAC 33:V.321.C Class 1 permit modifications.

#### **VII.A.7. Specific Waste Ban**

**VII.A.7.a.** The permittee shall not place in any land disposal unit the wastes specified in LAC 33:V. Chapter 22 after the effective date of the prohibition unless the Administrative Authority has established disposal or treatment standards for the hazardous waste and the permittee meets such standards and other applicable conditions of this Permit.

**VII.A.7.b.** The permittee may store wastes restricted under LAC 33:V.Chapter 22 solely for the purpose of accumulating quantities necessary to facilitate proper recovery, treatment, or disposal provided that it meets the requirements of LAC 33:V.2205 including, but not limited to, clearly marking each tank or container.

**VII.A.7.c.** The permittee is required to comply with all applicable requirements of LAC 33:V.2245 as amended. Changes to the Waste Analysis Plan will be considered permit modifications at the request of the permittee, pursuant to LAC 33:V.321.C.

**VII.A.7.d.** The permittee shall review the waste analysis plan and analyze the waste when a process changes to determine whether the waste meets applicable treatment standards. Results shall be maintained in the operating record.

**VII.A.8. Information Submittal for the Corrective Action Strategy**

Failure to comply with any condition of the Permit, including information submittals, constitutes a violation of the Permit and is grounds for enforcement action, permit amendment, termination, revocation, suspension, or denial of permit renewal application. Falsification of any submitted information is grounds for termination of this Permit (LAC 33:V.323.B.3).

The permittee shall ensure that all plans, reports, notifications, and other submissions to the Administrative Authority required by this Permit using the Corrective Action Strategy are signed and certified in accordance with LAC 33:V.Chapter 5, Subchapter B. All submittals required under the corrective action strategy must conform to those requirements outlined in the RECAP (see Condition VIII of this permit). Variance from content and/or formatting guidelines provided under the RECAP shall be requested by the permittee prior to submittal to the Administrative Authority, as deemed necessary. Approval or disapproval of such a request with further guidance on content and formatting will be provided by the Administrative Authority, as deemed necessary. Five (5) copies each of these plans, reports, notifications or other submissions and one (1) electronic copy (3.5" IBM compatible disk or CD-ROM) of all portions thereof which are in word processing format shall be submitted to the Administrative Authority by Certified Mail or hand delivered to:

**Louisiana Department of Environmental Quality  
Office of Environmental Services  
Remediation Services Division  
P.O. Box 4314  
Baton Rouge, LA 70821-4314**

A summary of the planned reporting milestones pursuant to the corrective action requirements of this Permit is found in Condition VIII, Table 1.

**VII.A.9. Data Retention**

All raw data, such as laboratory reports, drilling logs, bench scale or pilot scale data, and other supporting information gathered or generated during activities undertaken pursuant to this Permit shall be maintained at the facility during the term of this Permit, including any reissued Permits.

#### **VII.A.10. Management of Wastes**

All solid wastes which are managed pursuant to a remedial measure taken under the corrective action process or as an interim measure addressing a release or the threat of a release from a solid waste management unit shall be managed in a manner protective of human health and the environment and in compliance with all applicable Federal, State and local requirements. As a response to the Louisiana legislature mandate La. R.S. 30:2272 (Act 1092 of the 1995 Regular Session) to develop minimum remediation standards, the LDEQ promulgated the Risk Evaluation Corrective Action Program (RECAP). RECAP's tiered approach to risk evaluation and corrective action establishes not only across the board numerical standards for most media, but also allows for the development of more site-specific numerical standards, as warranted. The permittee is required to comply with all applicable requirements of RECAP. Approval of units for managing wastes and conditions for operating the units shall be granted through the permitting process.

#### **VII.B. EMISSION STANDARDS - PROCESS VENTS, EQUIPMENT LEAKS, TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS (AA-BB-CC AIR REGULATIONS)**

(RESERVED)

#### **VII.C. SPECIFIC CONDITION - CLOSURE**

Pursuant to Section 3005(j)(1) of the Hazardous and Solid Waste Amendments of 1984, the permittee shall close all closing units, if any, in accordance with the following provisions:

**VII.C.1.** Other than consolidation of any wastes from the sites in conformance with LAC 33:V.Chapter 22, Land Disposal Restrictions, the permittee shall not place waste prohibited by LAC 33:V.Chapter 22 into any closing units;

**VII.C.2.** The permittee shall perform unit closures in accordance with the Closure Plan(s) as approved at the time of closure, and which meet(s) all relevant State and Federal closure requirements at the time of closure; and

**VII.C.3.** The permittee shall notify the Administrative Authority in writing at least sixty (60) days prior to commencement of closure.

## **VIII. SPECIAL CONDITIONS PURSUANT TO HAZARDOUS AND SOLID WASTE AMENDMENTS—CORRECTIVE ACTION STRATEGY (CAS)**

Corrective Action for Releases: Section 3004(u) of RCRA, as amended by the Hazardous and Solid Waste Amendments (HSWA), and LAC 33:V.3322 require that permits issued after November 8, 1984, address corrective action for releases of hazardous waste or hazardous constituents from any solid waste management unit at the facility, regardless of when the waste was placed in the unit.

EPA's traditional RCRA corrective action approach is structured around several elements common to most activities. In the first phase, RCRA facility assessment (RFA), EPA or the authorized state assesses the facility to identify releases and determine the need for corrective action. In the second phase, RCRA facility investigation (RFI), the facility conducts a more detailed investigation to determine the nature and extent of contaminants released to ground water, surface water, air, and soil. If remedial action is needed, a third phase, corrective measures study (CMS), is started. During this phase, the facility conducts a study, which when completed, describes the advantages, disadvantages, and costs of various cleanup options. After selection of a final remedy, the fourth phase, corrective measures implementation (CMI), is initiated. The facility is required to design, construct, operate, maintain, and monitor the final remedy(s).

The Corrective Action Strategy (CAS) is an alternate corrective action approach that can be implemented during any phase of corrective action for a release area. The permittee shall use the CAS approach as the framework for corrective action for any new releases, to clarify, facilitate and expedite the process, and shall use the **Louisiana Department of Environmental Quality Risk Evaluation/Corrective Action Program (RECAP)** for screening and media-specific cleanup standards, and No Further Action (NFA) determinations. EPA has interpreted the term "release" to mean, "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." (50 FR 2873, July 15, 1985). The CAS refers to "release areas" as solid waste management units (SWMUs) and areas of concern (AOCs) while the RECAP refers to release areas as areas of investigation (AOIs). SWMUs and AOCs may also be referred to as "AOIs" when investigated and managed under the RECAP.

Use of the CAS process is required for any new releases which have to be reported under the LA RECAP reporting requirements and are unable to be managed using the self-implementation process referred to in RECAP. The use of the CAS process is also required for any and all new releases that exceed the reportable quantity reporting requirements in LAC 33:I Office of the Secretary.

## **VIII.A. ALTERNATE CORRECTIVE ACTION**

### **VIII.A.1. Introduction to CAS**

This Permit will utilize the CAS Guidance Document ([www.epa.gov/Arkansas/6pd/rcra\\_c/pd-o/riskman.htm](http://www.epa.gov/Arkansas/6pd/rcra_c/pd-o/riskman.htm)) developed by the U.S. Environmental Protection Agency (EPA) Region 6 whenever the Administrative Authority determines that it will serve to facilitate the corrective action. The CAS Guidance Document shall be utilized to the fullest extent practicable for planning and implementation of the corrective action. The CAS in this Permit shall not supersede existing Federal, State, and local regulations. The two primary objectives are to prioritize corrective action at the facility, and streamline corrective action administrative procedures, resulting in the protection of human health and the environment.

The CAS is a performance-based approach; using data quality objectives, investigations begin with the endpoint in mind. The CAS is a risk management strategy that can be implemented during any phase of corrective action. However, the CAS need not be applied to work that has already been completed to the satisfaction of the Administrative Authority. Performance standards are established at the beginning of the corrective action process, allowing earlier and more focused implementation. Releases are screened using RECAP screening numbers to determine the priority of corrective action, and remedial alternatives are selected on the basis of their ability to achieve and maintain the established performance standards.

There is no one specific path through the CAS process. The CAS is a facility-wide approach, focusing corrective action on releases that pose the greatest risk first. Screening releases will also enable some areas of interest to qualify for no further action at this time (Condition VIII.A.3.a.), thus resources can be used to best benefit the protection of human health and the environment. The CAS process also considers activities previously conducted under the traditional corrective action process. Appendix 1 of this permit contains a summary of corrective action activities completed to date and also describes where the permittee is in the CAS process at the time of issuance of this permit. The applicability of various provisions of the CAS will depend on where the permittee is in the CAS process as detailed in Appendix 1.

The traditional RCRA corrective action process and reports (i.e., RFIs, CMSs, CMIs, etc.) are not elements of the CAS. However, the use of information and reports from the traditional corrective action process, if available, is encouraged, in addition to new site-specific information.

The Administrative Authority, through an agency-initiated permit modification, may remove the CAS as the means of facility-wide corrective action in the case of the failure of the permittee to disclose information, abide by the terms and conditions of this permit, adhere to agreed schedules, or show adequate progress; or should an impasse occur between the permittee and the Administrative Authority. The

Administrative Authority will institute other means of corrective action (such as traditional corrective action) at the facility through modification of this permit.

#### **VIII.A.2. Performance Standards**

Expectations for the outcome of corrective action at a facility are established in the CAS by three performance standards as defined in Conditions VIII.A.2.a through c. The permittee's proposed performance standards shall be presented during the scoping meeting. The permittee must justify the proposed performance standards through evaluation and documentation of land use, ground water designation (current and reasonably expected future use), types of receptors present, exposure pathways, etc.; as described in RECAP, Chapter 2. Through the application of the performance standards and RECAP, the permittee and Administrative Authority shall determine whether a release must be addressed through corrective action, and whether implemented corrective actions are protective of human health and the environment.

The permittee shall submit the performance standards in writing along with the Conceptual Site Model (Condition VIII.D) within one-hundred and twenty (120) days after the scoping meeting. The Administrative Authority may either approve the performance standards proposed by the permittee or establish performance standards that the Administrative Authority deems necessary to protect human health and the environment.

The three CAS performance standards are defined below. The order in which the performance standards are listed does not indicate that one performance standard takes priority over another. All applicable performance standards must be achieved by the permittee.

##### **VIII.A.2.a. Source Control Performance Standard**

Source control refers to the control of materials that include or contain hazardous wastes or hazardous constituents that act as a reservoir for migration of contamination to soil, sediment, ground water, surface water, or air, or as a source for direct exposure.

For new releases not identified in Appendix 1, the permittee must determine if source material is present. Removal, containment, treatment, or a combination of the three, must be evaluated on a case-by-case basis. Controlling source material is a predominating issue in the CAS, and must be addressed to ensure protectiveness over time. Prioritization of the SWMUs and AOCs does not mean avoidance of controlling source materials.

##### **VIII.A.2.b. Statutory and Regulatory Performance Standard**

Applicable statutory and regulatory requirements (Federal, State, and local) must be identified. These requirements may dictate media-specific contaminant levels (e.g., maximum contaminant levels (MCLs) in drinking



water) that must be achieved and may become a performance standard for the permittee.

#### **VIII.A.2.c. Final Risk Goal Performance Standard**

The final risk goal is the level of protection to be achieved and maintained by the permittee. The final risk goal shall be based on site-specific issues including land use, special subpopulations, contaminant concentrations based on acceptable risk, location at which the levels are measured, and the remediation time frame, as specified by RECAP.

One final risk goal may apply to the entire facility, but it is more likely that different releases will require different final risk goals due to variations in location of releases, land use, proximity of receptors, etc. The final risk goal will be based on sound risk assessment methodologies (Condition VIII.A.3).

#### **VIII.A.3. Use of RECAP**

The latest edition of the RECAP document shall be used by the permittee to determine the need for further corrective actions under this permit. The RECAP consists of a tiered framework comprised of a Screening Option (SO), and three Management Options (MO). The tiered management options allow site evaluation and corrective action efforts to be tailored to site conditions and risks. As the MO level increases, the approach becomes more site-specific and hence, the level of effort required to meet the objectives of the Option increases.

The RECAP shall be used by the permittee to evaluate data quality and data usability (RECAP Section 2.4 and 2.5), to determine the identity of an AOI as described in RECAP Section 2.6, and for estimations of Area of Investigation Concentrations and Groundwater Compliance Concentrations for each media as defined in RECAP Section 2.8.

The RECAP shall be used by the permittee to evaluate land use as described in RECAP Section 2.9, and groundwater/aquifer use as described in RECAP Section 2.10.

The RECAP shall be used by the permittee to prioritize AOCs, SWMUs, and AOIs that require remediation so site investigations are focused on the release areas that pose the greatest risk. As the CSM is compiled, the permittee shall assess historical data (RECAP Section 2.5) and use the following management options, as appropriate, to address each release site.

[Note: Condition VIII.A.3 need not be applied to corrective action activities that have already been completed to satisfaction of the administrative authority except when warranted by new information and/or data (not available to the Administrative Authority at the time it rendered decisions regarding the specific measures and/or activities) relevant to the previously-approved corrective action activities.]

#### **VIII.A.3.a. Screening Option**

The permittee shall use the Screening Standards (SS) which are LDEQ-derived screening numbers for soil and groundwater for non-industrial and industrial land use scenarios. The SS shall be used to demonstrate that an AOI does not pose a threat to human health and the environment and, hence does not require further action at this time (NFA-ATT) or that further evaluation is warranted under a higher Management Option.

#### **VIII.A.3.b. Management Option 1**

The permittee shall use Management Option 1 (MO-1) which provides a RECAP standard (RS) derived for non-industrial and industrial exposure scenarios using currently recommended default exposure parameters and toxicity values. Under MO-1, an AOI may warrant a NFA-ATT determination, or if an exposure, source, or compliance concentration detected at the AOI exceeds a MO-1 limiting RS, then the permittee may; (1) remediate to the MO-1 limiting RS (and comply with closure/post-closure requirements for MO-1), or (2) proceed with a MO-2 or MO-3 evaluation.

#### **VIII.A.3.c. Management Option 2**

The permittee shall use Management Option 2 (MO-2) which provides for the development of soil and groundwater RS using site-specific data with specified analytical models to evaluate constituent fate and transport at the AOI. The results of this evaluation shall be used in conjunction with standard reasonable maximum exposure (RME) assumptions to identify site-specific MO-2 RS. Under MO-2, an AOI may warrant a NFA-ATT determination, or if an exposure, source, or compliance concentration detected at the AOI exceeds a MO-2 limiting RS, then the permittee may; (1) remediate to the MO-2 limiting RS (and comply with closure/post-closure requirements for MO-2), or (2) proceed with a MO-3 evaluation.

#### **VIII.A.3.d. Management Option 3**

The permittee shall use Management Option 3 (MO-3) which provides the option of using site-specific data for the evaluation of exposure and the evaluation of environmental fate and transport at the AOI. The results of the site-specific evaluation may be to develop site-specific MO-3 RS. Under MO-3, an AOI may warrant a NFA-ATT determination, or if an exposure, source, or compliance concentration detected at the AOI exceeds a MO-3 limiting RS, then the permittee shall; (1) remediate to the MO-3 RS, (2) conduct confirmatory sampling, and (3) comply with closure/post-closure requirements for MO-3.

#### **VIII.A.4. Corrective Action for Releases Beyond Facility Boundary**

Section 3004(v) of RCRA as amended by HSWA, and State regulations promulgated as LAC 33:V.3322.C require corrective actions beyond the facility property boundary, where necessary to protect human health and the environment, unless the permittee demonstrates that, despite the permittee's best efforts, the permittee was unable to obtain the necessary permission to undertake such actions. The permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where offsite access is denied.

#### **VIII.A.5. Financial Responsibility**

Assurances of financial responsibility for corrective action shall be provided by the permittee as specified in this permit and LAC 33:V.Chapter 33 following major modification for remedy selection. The Administrative Authority reserves the right to require financial assurance prior to remedy selection based upon facility compliance history, the extent and degree of contamination, financial health of the permittee, and input from the public.

#### **VIII.A.6. Summary of Corrective Action Activities**

A summary of the corrective action activities associated with the facility is provided in Condition VIII, Appendix 1 of this permit. AOCs and SWMUs that are currently being managed or proposed for management under a prescribed corrective action program (e.g., groundwater order, corrective action order, CERCLA) are identified in Condition VIII, Appendix 1, Table 1 of this permit.

#### **VIII.A.7. Approval of Alternate Schedule**

The permittee may submit a written request for an alternate schedule for a submittal deadline as presented in Condition VIII, Table 1. The request should propose a specific alternate schedule and include an explanation as to why the alternate schedule is necessary. The Administrative Authority will consider site-specific criteria in either approving or disapproving the request for an alternate schedule.

### **VIII.B. PROJECT DEVELOPMENT AND SCOPING MEETING**

#### **VIII.B.1. Notice of Intent**

The permittee must submit to the Administrative Authority a Notice of Intent to conduct corrective action using the CAS within sixty (60) days of the effective date of this permit. The notice of intent should state the following in a concise manner:

**VIII.B.1.a.** General information regarding facility location;

**VIII.B.1.b.** General information regarding the facility's operational history;

**VIII.B.1.c.** General discussion on how the permittee will proceed through the CAS;

**VIII.B.1.d.** Brief description of proposed performance standards for corrective action; and

**VIII.B.1.e.** Propose a date for a scoping meeting between the permittee and the Administrative Authority to be held within sixty (60) days of the date of the Notice of Intent.

#### **VIII.B.2. Scoping Meeting**

The scoping meeting will serve as the first CAS milestone where the permittee and the Administrative Authority identify expectations concerning CAS implementation. The length and extent of the meeting will depend on the complexity of the site. Agreements on land use, groundwater classification, the level of detail required in the conceptual site model (see Condition VIII.D) and expectations for remediation goals will be discussed during the scoping meeting(s). During the scoping meeting the permittee will present the following information to the Administrative Authority:

**VIII.B.2.a.** A conceptual site model (if one already has been developed);

**VIII.B.2.b.** Discussions on history of corrective action at the facility, including facility investigations, risk evaluations or risk assessments, interim measure/stabilizations and final remedies implemented;

**VIII.B.2.c.** Proposed performance standards for the facility with justification, and potential risk management approaches;

**VIII.B.2.d.** Discussions on how the permittee plans to use the CAS to meet its corrective action obligations, including permitting and compliance issues;

**VIII.B.2.e.** A Communication Strategy Plan that specifies where in the CAS process the permittee is currently and how the permittee will provide information about future progress at the facility to the Administrative Authority (i.e., progress reports, conference calls, routine meetings, etc.);

**VIII.B.2.f.** Site-specific concerns (i.e., sensitive environments or special subpopulations);

**VIII.B.2.g.** Need for interim measures or stabilization activities, if necessary; and

**VIII.B.2.h.** Schedule for submittal of the CAS Investigation Work plan and proposed schedule for conducting and completing CAS requirements, including public participation.

Information plans and reports that have already been developed by the permittee during the corrective action process can be referenced during the scoping meeting. (Note: Both AOCs currently identified in this permit have undergone investigation, risk assessment, source work, and groundwater remediation and it is anticipated that many of these documents will be accepted by reference during the scoping meeting.) The permittee must coordinate with the Administrative Authority in order to determine the date, time, and location of the scoping meeting.

### **VIII.C. REPORTING REQUIREMENTS**

**VIII.C.1.** The permittee shall submit, in accordance with Condition VII.A.8, signed reports of all activities conducted pursuant to the provisions of this Permit as required by the Administrative Authority. The reporting schedule shall be determined on a case-by-case basis by the Administrative Authority. These reports shall contain, as applicable to the stage of corrective action, the information required by CAS, as well as the following:

**VIII.C.1.a.** A description of the work completed and an estimate of the percentage of work completed;

**VIII.C.1.b.** Summaries of all findings, including summaries of laboratory data;

**VIII.C.1.c.** Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify problems;

**VIII.C.1.d.** Projected work for the next reporting period;

**VIII.C.1.e.** Summaries of contacts pertaining to corrective action or environmental matters with representatives of the local community, public interest groups or State government during the reporting period;

**VIII.C.1.f.** Changes in key project personnel during the reporting period; and

**VIII.C.1.g.** Summaries of all changes made in implementation during the reporting period.

**VIII.C.2.** Copies of other reports relating to or having bearing upon the corrective action work (e.g., inspection reports, drilling logs and laboratory data) shall be made available to the Administrative Authority upon request.

**VIII.C.3.** In addition to the written reports as required in Condition VIII.C.1 and VIII.C.2 above, at the request of the Administrative Authority, the permittee shall provide status review through briefings with the Administrative Authority.

**VIII.C.4.** The determination and approval of remedy selections, schedules of submittals and minor changes to any corrective action work plans may be made by

the Administrative Authority during the scoping meeting or status review briefings as described in Condition VIII.C.3.

#### **VIII.D. SPECIFIC CONDITION – CONCEPTUAL SITE MODEL (CSM)**

No later than 120 days after the scoping meeting, the permittee shall submit to the Administrative Authority a CSM (along with the Performance Standards detailed in Condition VIII.A.2) or an update of the CSM already submitted for the AOC's and/corrective action initiated for the units listed in Appendix 1, at the scoping meeting providing background information and the current conditions at the facility. The level of detail required for the CSM will be discussed during the scoping meeting. At a minimum, the CSM must address current site conditions, land use, known and/or potential constituent source(s), routes of constituent migration, exposure media (i.e., soil, surface waters, groundwater), exposure points, points of compliance and pathways, receptors and source media to be evaluated under the RECAP. The CSM must include a completed Figure 8 (LAC 33:1.Chapter 13). The permittee may include completed investigations, existing data, or previously submitted documents in the CSM by reference. References must include the names, dates, and brief summaries of the documents.

If a CSM has been previously developed, the scoping meeting will also provide the opportunity for the permittee and Administrative Authority to consider and identify all data gaps in the CSM. The initial CSM shall be considered the "base document" to be prepared and updated by the facility as new information is gathered during investigations. The CSM shall be used by the facility to make decisions regarding risk management options, ecological risk, and monitored natural attenuation determinations (RECAP Section 2.16), or technical impracticability (TI) waiver determinations, when appropriate.

The Administrative Authority reserves the right to require revisions to the CSM based upon data resulting from ongoing investigations and activities. Revisions to the CSM may also be required for newly identified SWMUs or AOCs according to Condition VIII.L of this permit (See Appendix 1, Ongoing Corrective Action) and based on new information and information not previously considered by the Administrative Authority.

The CSM shall be divided into Profiles as detailed in Conditions VIII.D.1 through 6. If the permittee chooses to use existing data and documents in the CSM, it may not be necessary to prepare the Profiles as detailed in Conditions VIII.D.1 through 6. However, the existing documents and data must provide sufficient information and detail which corresponds to the information required by the Facility, Land Use and Exposure, Physical, Release, Ecological, and Risk Management Profiles.

##### **VIII.D.1. Facility Profile**

The permittee shall include in the CSM a Facility Profile which shall summarize the regional location, pertinent boundary features, general facility structures, process areas, and locations of solid waste management units or other potential sources of contaminant migration from the routine and systematic releases of hazardous constituents to the environment (e.g., truck or railcar loading/unloading areas). The

permittee shall also include historical features that may be potential release areas because of past management practices. The Facility Profile shall include:

**VIII.D.1.a.** Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

**VIII.D.1.a.(1)** General geographic location;

**VIII.D.1.a.(2)** Property lines with the owners of all adjacent property clearly indicated;

**VIII.D.1.a.(3)** Facility structures, process areas and maintenance areas;

**VIII.D.1.a.(4)** Any other potential release areas shall be delineated, such as railcar loading/unloading areas or any other AOI as described in RECAP Section 2.6; and

**VIII.D.1.a.(5)** Locations of historical features that may be potential release areas or any areas of past solid and hazardous waste generation, treatment, storage or disposal activities.

**VIII.D.1.b.** The Facility Profile shall also include a description of ownership and operation of the facility.

**VIII.D.1.c.** The permittee shall provide pertinent information for those spills that have not been assessed and reported to the Administrative Authority during facility investigations, addressed by facility spill contingency plans, or previously remediated or deemed for no further action. The information must include at minimum, approximate dates or periods of past waste spills, identification of the materials spilled, the amount spilled, the location where spilled, and a description of the response actions conducted (local, state, federal, or private party response units), including any inspection reports or technical reports generated as a result of the response.

## **VIII.D.2. Land Use and Exposure Profile**

The permittee shall include in the CSM a Land Use and Exposure Profile which includes surrounding land uses (industrial and non-industrial, as described in RECAP Sections 2.9.1 and 2.9.2), resource use locations (water supply wells, surface water intakes, etc.), beneficial resource determinations (groundwater classifications as described in RECAP Section 2.10), natural resources (wetlands, etc.), sensitive subpopulation types and locations (schools, hospitals, nursing homes, day care centers, etc.), applicable exposure scenarios, and applicable exposure pathways

identifying the specific sources, releases, migration mechanisms, exposure media, exposure routes and receptors. The Land Use and Exposure Profile shall include:

**VIII.D.2.a.** Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

**VIII.D.2.a.(1)** Surrounding land uses, resource use locations, and natural resources/wetlands;

**VIII.D.2.a.(2)** Locations of sensitive subpopulations; and

**VIII.D.2.a.(3)** An exposure pathway flowchart which outlines sources, migration pathways, exposure media and potential receptors as depicted in Figure 8 (CMS example) of the RECAP.

### **VIII.D.3. Physical Profile**

The permittee shall include in the CSM a Physical Profile which shall describe the factors that may affect releases, fate and transport, and receptors, including; topography, surface water features, geology, and hydrogeology. The Physical Profile shall include:

**VIII.D.3.a.** Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V.Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

**VIII.D.3.a.(1)** Topographic maps with a contour interval of five (5) or ten (10) feet, a scale of one inch to 100 feet (1:100), including hills, gradients, and surface vegetation or pavement;

**VIII.D.3.a.(2)** Surface water features including routes of all drainage ditches, waterways, direction of flow, and how they migrate to other surface water bodies such as canals and lakes;

**VIII.D.3.a.(3)** Regional geology including faulting and recharge areas, as well as local geology depicting surface features such as soil types, outcrops, faulting, and other surface features;

**VIII.D.3.a.(4)** Subsurface geology including stratigraphy, continuity (locations of facies changes, if known), faulting and other characteristics;

**VIII.D.3.a.(5)** Maps with hydrogeologic information identifying water-bearing zones, hydrologic parameters such as transmissivity,



and conductivity. Also locations and thicknesses of aquitards or impermeable strata; and

**VIII.D.3.a.(6)** Locations of soil borings and production and groundwater monitoring wells, including well log information, and construction of cross-sections which correlate substrata. Wells shall be clearly labeled with ground and top of casing elevations (can be applied as an attachment).

#### **VIII.D.4. Release Profile**

The permittee shall include in the CSM a Release Profile which shall describe the known extent of contaminants in the environment, including sources, contaminants of concern (COC), areas of investigations, distribution and magnitude of known COCs with corresponding sampling locations, and results of fate and transport modeling depicting potential future extent/magnitude of COCs. The Release Profile shall include:

**VIII.D.4.a.** Map(s) and other documents depicting the following information (all maps shall be consistent with the requirements set forth in LAC 33:V. Chapter 5 and be of sufficient detail and accuracy to locate and report all current site conditions):

**VIII.D.4.a.(1)** Estimations of source concentrations, exposure concentrations and compliance concentrations for each affected media as defined in Section 2.8 of RECAP;

**VIII.D.4.a.(2)** Isopleth maps depicting lateral extent and concentrations of COCs;

**VIII.D.4.a.(3)** Results of fate and transport modeling showing potential exposure concentrations and locations; and

**VIII.D.4.a.(4)** Locations of potential sources including past or present waste units or disposal areas and all SWMUs/AOCs.

**VIII.D.4.b.** Table(s) depicting the following information for each SWMU/AOC, including but not limited to: location; type of unit/disposal/release area; design features; operating practices (past and present); period of operation; age of unit/disposal/release area; general physical condition; and method of closure.

**VIII.D.4.c.** Table(s) depicting the following waste/contaminant characteristics for those areas referenced in Condition VIII.D.4.b, including but not limited to: type of waste placed in the unit (hazardous classification, quantity, chemical composition), physical and chemical characteristics (physical form,

description, temperature, pH, general chemical class, molecular weight, density, boiling point, viscosity, solubility in water, solubility in solvents, cohesiveness, vapor pressure); and migration and dispersal characteristics of the waste (sorption coefficients, biodegradability, photo degradation rates, hydrolysis rates, chemical transformations).

#### **VIII.D.5. Ecological Profile**

The permittee shall include in the CSM an Ecological Profile that shall describe the physical relationship between the developed and undeveloped portions of the facility, the use and level of disturbance of the undeveloped property, and the type of ecological receptors present in relation to completed exposure pathways. When compiling data for the Ecological Profile, current, as well as, future impacts to receptors and/or their habitats shall be considered. The Ecological Profile shall include:

**VIII.D.5.a.** A history and description of the developed property on the facility, including structures, process areas, waste management units, and property boundaries;

**VIII.D.5.b.** A history and description of the undeveloped property, including habitat type (wetland, grassy area, forest, ponds, etc.). Include a description of the primary use, degree and nature of any disturbance, along with proximity to drainage ditches, waterways and landfill areas;

**VIII.D.5.c.** A description of the site receptors in relation to habitat type, including endangered or protected species, mammals, birds, fish, etc.;

**VIII.D.5.d.** A description of the relationship between release areas and habitat areas, specifically relating chemicals of potential ecological concern (COEC) to ecological receptors;

**VIII.D.5.e.** An ecological checklist as described in Section 7.0 of RECAP. An ecological checklist (presented in Appendix C, Form 18 of the RECAP) shall be used to determine if a tier 1 (screening level) Ecological Risk Assessment (ERA) is warranted.

#### **VIII.D.6. Risk Management Profile**

The permittee shall include in the CSM a Risk Management Profile that shall describe how each AOI at the facility will be managed for the protection of human health and the environment. The Risk Management Profile will serve as documentation of the results of the site ranking system (described in Section 2.2 of RECAP). The Risk Management Profile will also document the criteria and verify that the SO, MO-1, MO-2 or MO-3 is appropriate for application at each AOI. The Risk Management Profile shall include:

**VIII.D.6.a.** A table for tracking the management options for each AOI, and the determination made, whether an AOI is deemed for no further action at this time (NFA-ATT) or is going to use either the SO, MO-1, MO-2 or MO-3 management option.

**VIII.D.6.b.** A list of identified site-wide data gaps for further investigation.

**VIII.D.6.c.** Documentation of all interim measures which have been or are being undertaken at the facility, including under State or Federal compliance orders, other than those specified in the Permit. This documentation shall include the objectives of the interim measures and how the measure is mitigating a potential threat to human health or the environment and/or is consistent with and integrated into requirements for a long term remedial solution.

## **VIII.E. INTERIM MEASURES**

**VIII.E.1.** If at any time during the term of this Permit, the Administrative Authority determines that a release or potential release of hazardous constituents from a SWMU/AOC poses a threat to human health and the environment, the Administrative Authority may require interim measures. The Administrative Authority shall determine the specific measure(s) or require the permittee to propose a measure(s). The interim measure(s) may include a permit modification, a schedule for implementation, and an Interim Measures Work plan. The Administrative Authority may modify this Permit according to LAC 33:V.321 to incorporate interim measures into the Permit. However, depending upon the nature of the interim measures, a permit modification may not be required.

**VIII.E.2.** The permittee may propose interim measures at any time by submittal of an Interim Measures Work plan subject to the approval of the Administrative Authority.

**VIII.E.3.** The Administrative Authority shall notify the permittee in writing of the requirement to perform interim measures and may require the submittal of an Interim Measures Work plan. For agency initiated permit changes, La R.S. 3023.B.(2) requires that the permittee be given notice and an opportunity for a hearing, prior to modifying a permit or permit conditions for cause. The following factors will be considered by the Administrative Authority in determining the need for interim measures and the need for permit modification:

**VIII.E.3.a.** Time required to develop and implement a final remedy;

**VIII.E.3.b.** Actual and potential exposure to human and environmental receptors;

**VIII.E.3.c.** Actual and potential contamination of drinking water supplies and sensitive ecosystems;

**VIII.E.3.d.** The potential for further degradation of the medium in the absence of interim measures;

**VIII.E.3.e.** Presence of hazardous wastes in containers that may pose a threat of release;

**VIII.E.3.f.** Presence and concentration of hazardous waste including hazardous constituents in soil that has the potential to migrate to ground water or surface water;

**VIII.E.3.g.** Weather conditions that may affect the current levels of contamination;

**VIII.E.3.h.** Risks of fire, explosion, or accident; and

**VIII.E.3.i.** Other situations that may pose threats to human health and the environment.

**VIII.E.5.** Upon approval of the Interim Measures Work plan and completion of the interim measure(s) implementation, the permittee will submit a report to the Administrative Authority describing the completed work.

**VIII.E.6.** At any time during or after the interim measure(s), including the issuance of an NFA-ATT, the Administrative Authority may require the permittee to submit the SWMUs/AOCs for further corrective action.

#### **VIII.F. CAS (CORRECTIVE ACTION STRATEGY) INVESTIGATION WORKPLAN**

**VIII.F.1.** The CAS Investigation Work plan that describes site investigation activities for corrective action shall be submitted to the Administrative Authority within 180 days after the scoping meeting between the permittee and the Administrative Authority. The CAS Investigation Work plan must address releases of hazardous waste or hazardous constituents to all media, unless otherwise indicated, for those SWMUs/AOCs listed in Appendix 1, Table 1. The focus of the site investigation phase for corrective action is to collect data to fill in data gaps identified in the CSM. The corrective action investigations may be conducted in phases if warranted by site conditions, contingent upon approval by the Administrative Authority.

[Note: Condition VIII.F need not be applied to corrective action activities that have already been completed to the satisfaction of the administrative authority except when warranted by new information and/or data (not available to the Administrative Authority at the time it rendered decisions regarding the specific measures and/or activities) relevant to the previously-approved corrective action activities.]

**VIII.F.1.a.** The CAS Investigation Work plan shall describe the management options (MO) for each AOI/release area, data quality objectives for achieving

each management option, and proposals for release characterizations (sampling and analysis/quality assurance plans) to support the data quality objectives (DQOs). (DQOs are determined based on the end use of the data to be collected, and the DQO development process should be integrated into project planning and refined throughout the CAS implementation. DQOs shall be used to 1) ensure that environmental data are scientifically valid, defensible, and of an appropriate level of quality given the intended use, and 2) expedite site investigations. The CAS Investigation Work plan is required to have DQOs that are developed to support the performance standard for each release.) The CAS Investigation Work plan shall detail all proposed activities and procedures to be conducted at the facility, the schedule for implementing and completing such investigations, the qualifications of personnel performing or directing the investigations, including contractor personnel, and the overall management of the site investigations. The scope of work for the site investigation can be found in RECAP Appendix B.

**VIII.F.1.b.** The CAS Investigation Work plan shall describe sampling, data collection quality assurance, data management procedures (including formats for documenting and tracking data and other results of investigations) and health and safety procedures.

**VIII.F.1.c.** Development of the CAS Investigation Work plan and reporting of data shall be consistent with the latest version of the following EPA and State guidance documents or the equivalent thereof:

**VIII.F.1.c.(1)** Guidance for the Data Quality Assessment, Practical Methods for Data Analysis. QA97 Version EPA QA/G-9. January 1998;

**VIII.F.1.c.(2)** Guidance for the Data Quality Objectives Process. EPA QA/G-4. September 1994;

**VIII.F.1.c.(3)** Data Quality Objectives Remedial Response Activities. EPA/540/G87-003. March 1987;

**VIII.F.1.c.(4)** Guidance on Quality Assurance Project Plans. EPA QA/G-5. February 1998;

**VIII.F.1.c.(5)** Interim EPA Data Requirements for Quality Assurance Project Plans. EPA Region 6, Office of Quality Assurance. May 1994;

**VIII.F.1.c.(6)** 29 CFR 1910.120 (b) for the elements to Health and Safety plans;

**VIII.F.1.c.(7)** RCRA Groundwater Monitoring: Draft Technical Guidance EPA/530-R-93-001 November 1992;

**VIII.F.1.c.(8)** Test Methods for Evaluating Solid Waste, Physical/Chemical Methods; SW-846, 3<sup>rd</sup> Edition. November 1992, with revisions;

**VIII.F.1.c.(9)** The LDEQ Handbook - Construction of Geotechnical Boreholes and Groundwater Monitoring Systems," prepared by the LDEQ and the Louisiana Department of Transportation and Development dated May 2000, or most current version. This document is printed by and available from the Louisiana Department of Transportation and Development, Water Resources Section, P. O. Box 94245, Baton Rouge, Louisiana 70804-9245; and

**VIII.F.1.c.(10)** The LAC 33:I.Chapter 13 and Louisiana Department of Environmental Quality Risk Evaluation/Corrective Action Program (RECAP), dated October 20, 2003, or most current version.

**VIII.F.2.** After the permittee submits the CAS Investigation Work plan; the Administrative Authority will approve, disapprove, or otherwise modify the CAS Investigation Work plan in writing. All approved work plans become enforceable components of this Permit.

In event of disapproval (in whole or in part) of the work plan, the Administrative Authority shall specify deficiencies in writing. The permittee shall modify the CAS Investigation Work plan to correct any deficiencies within the time frame specified in the notification of disapproval by the Administrative Authority. The modified work plan shall be submitted in writing to the Administrative Authority for review. Should the permittee take exception to all or part of the disapproval, the permittee shall submit a written statement of the ground for the exception within fourteen (14) days of receipt of the disapproval.

**VIII.F.3.** The Administrative Authority shall review for approval, as part of the CAS Investigation Work plan or as a new work plan, any plans developed pursuant to Condition VIII.L addressing further investigations of newly-identified SWMUs/AOCs, or Condition VIII.M addressing new releases from previously-identified SWMUs/AOCs.

#### **VIII.G. IMPLEMENTATION OF SITE INVESTIGATION ACTIVITIES UNDER CAS**

No later than fourteen (14) days after the permittee has received written approval from the Administrative Authority for the CAS Investigation Work plan, the permittee shall implement the site investigation activities according to the schedules and in accordance with the approved CAS Investigation Work plan and the following:

**VIII.G.1.** The permittee shall notify the Administrative Authority at least 10 working days prior to any field sampling, field-testing, or field monitoring activity required by

this Permit to give LDEQ personnel the opportunity to observe investigation procedures and/or split samples.

**VIII.G.2.** Deviations from the approved CAS Investigation work plan, which may become necessary during implementation (such as field work), should if possible, be approved by the Administrative Authority prior to the necessary adjustment. Any deviations from the work plan must be fully documented and described in the progress reports (Condition VIII.C), RECAP Report (Condition VIII.H) and the final Risk Management Plan (Condition VIII.J).

## **VIII.H. RECAP REPORT**

Within ninety (90) days after completion of the site investigation the permittee shall submit a RECAP Report to the Administrative Authority for approval. The RECAP Report shall document the results of the site investigation activities, and the evaluation of the impacts from releases. The Administrative Authority will review and evaluate the report and provide the permittee with written notification of the report's approval or a notice of deficiency. If the Administrative Authority determines the RECAP Report does not fully meet the objectives stated in the CAS Investigation Work plan (Permit Condition VIII.F), the Administrative Authority shall notify the permittee in writing of the report's deficiencies, and specify a due date for submittal of a revised Final Report to the Administrative Authority.

**VIII.H.1.** The permittee shall screen site-specific data using the appropriate RECAP standard (RS) for each AOI (depending on the MO), evaluate impacts from releases with exposure scenario evaluations, and update the Risk Management Profile of the CSM.

**VIII.H.2.** The report shall include, but not be limited to, the following:

**VIII.H.2.a.** Documentation of site investigation activities and results;

**VIII.H.2.b.** Evaluation of exposure scenarios to document impacts from releases;

**VIII.H.2.c.** Deviations from the CAS Investigation Work plan;

**VIII.H.2.d.** Results of screening activities using RECAP standards (RS), including SO, MO-1, MO-2, or MO-3 RS for each media;

**VIII.H.2.e.** The revised CSM with updated profiles which incorporate investigation and screening results; and

**VIII.H.2.f.** Proposed revisions to performance standards based on new information (e.g., change in land use, difference in expected receptors and/or exposure, or other differences in site conditions), if warranted.

## **VIII.I. REMEDIAL ALTERNATIVES STUDY**

Upon completion and approval of the RECAP Report, the permittee shall proceed with the evaluation of remedial alternatives to complete corrective action for each AOI according to the performance standards described in Condition VIII.A.2. The remedial alternatives shall be submitted to the Administrative Authority in the Remedial Alternatives Study (RAS) within ninety (90) days of the Administrative Authority's approval of the RECAP Report. In the Remedial Alternatives Study, the permittee shall identify and evaluate various potential remedies that would meet the performance-based corrective action objectives and propose one or more specific remedies based on an evaluation of applicable data and available corrective action technologies. The RAS shall be prepared in a manner that addresses the extent and nature of the contamination at the facility.

**VIII.I.1.** The permittee shall evaluate remedies for each AOI that shall:

**VIII.I.1.a.** attain compliance with corrective action objectives for releases of hazardous waste and/or hazardous constituents, as established in the Conceptual Site Model or in later investigations approved by the Administrative Authority;

**VIII.I.1.b.** control sources of releases;

**VIII.I.1.c.** meet acceptable waste management requirements;

**VIII.I.1.d.** protect human health and the environment; and

**VIII.I.1.e.** meet applicable statutory and regulatory requirements (as noted in Condition VIII.A.2.b).

**VIII.I.2.** The permittee shall evaluate the use of presumptive remedies and innovative technologies to achieve the appropriate remedial performance standards for each AOI.

**VIII.I.3.** The permittee shall review the current interim measures/ stabilization activities to evaluate if these measures meet all the criteria for final remedy.

**VIII.I.4.** If under certain site-specific conditions, or when it is not technically or economically feasible to attain the corrective action objectives, the permittee may propose to use institutional controls to supplement treatment or containment-based remedial actions. Institutional controls must be approved by the Administrative Authority (Section 2.15 of RECAP).

**VIII.I.5.** The RAS shall at a minimum include:

**VIII.I.5.a.** An evaluation of the performance reliability, ease of implementation, and the potential impacts of the potential remedies;



**VIII.I.5.b.** An assessment of the effectiveness of potential remedies in achieving adequate control of sources and meeting remedial performance standards;

**VIII.I.5.d.** An assessment of the costs of implementation for potential remedies;

**VIII.I.5.e.** An assessment of the time required to begin and complete the remedy;

**VIII.I.5.f.** An explanation of the rationale for the remedy proposed for each AOI or group of AOIs; and

**VIII.I.5.g.** An assessment of institutional requirements (e.g., state permit requirements that may impact remedy implementation).

**VIII.I.6.** The Administrative Authority will review and evaluate the RAS and provide the permittee with written notification of the study's approval or a notice of deficiency. If the Administrative Authority determines the RAS does not fully meet the requirements detailed in Conditions VIII.I.1 through VIII.I.5, the Administrative Authority shall notify the permittee in writing of the RAS's deficiencies, and specify a due date for submittal of a revised RAS to the Administrative Authority. In addition, the Administrative Authority may require the permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

#### **VIII.J. RISK MANAGEMENT PLAN**

Within ninety (90) days of the Administrative Authority's approval of the RAS, the remedy/remedies proposed for selection shall be documented and submitted in the Risk Management Plan. The permittee shall propose corrective action remedies in accordance with Chapter IV of the RCRA Corrective Action Plan (Final), May 1994, OSWER Directive 9902.3-2A or as directed by the Administrative Authority.

**VIII.J.1.** The Risk Management Plan shall at a minimum include:

**VIII.J.1.a.** A summary of the remedial alternatives for each AOI and the rationale used for remedy selection;

**VIII.J.1.b.** The final CSM with proposed remedies, including locations of AOIs addressed by a risk management activity, COC concentrations that represent the long-term fate and transport of residual COCs and the exposure pathways affected by the risk management activity;

**VIII.J.1.c.** Cost estimates and implementation schedules for proposed final remedies;

**VIII.J.1.d.** Proposed remedy design and implementation precautions, including special technical problems, additional engineering data required, permits and regulatory requirements, property access, easements and right-of-way requirements, special health and safety requirements, and community relations activities;

**VIII.J.1.e.** Remedy performance criteria and monitoring:

The permittee shall identify specific criteria (such as land use changes, fate and transport model verification and constructed remedy performance) that will be evaluated to demonstrate that the risk management activity implemented will remain protective. A schedule for periodic performance review (such as monitoring data summaries, including graphical and statistical analyses) shall be established to demonstrate that the implemented activities are consistently achieving and maintaining desired results. Further, a mechanism shall be established to re-evaluate risk management activities in the event the implemented action does not achieve and maintain the performance standards;

**VIII.J.1.f.** Contingency plans; and

**VIII.J.1.g.** Description and schedules for performance reviews.

**VIII.J.2.** After the permittee submits the Risk Management Plan, the Administrative Authority will review and evaluate the plan and subsequently either inform the permittee in writing that the plan is acceptable for public review or issue a notice of deficiency.

**VIII.J.3.** If the Administrative Authority determines the Risk Management Plan does not fully meet the remedial objectives, the Administrative Authority shall notify the permittee in writing of the plan's deficiencies and specify a due date for submittal of a revised Final Risk Management Plan. In addition, the Administrative Authority may require the permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

**VIII.J.4.** After the Administrative Authority has determined the Risk Management Plan is acceptable for public review, the Administrative Authority shall inform the permittee in writing and instruct the permittee to submit the plan as a Class 3 permit modification request in accordance with the requirements of LAC 33:V.321.C.3.

**VIII.J.5.** After conclusion of a 60-day comment period, the Administrative Authority will either grant or deny the Class 3 permit modification request. In addition the Administrative Authority must consider and respond to all significant comments received during the 60-day comment period.

**VIII.J.6.** If the Class 3 Modification request is granted, the Administrative Authority shall prepare a draft permit incorporating the proposed changes in accordance with LAC 33:V.703.C and solicit public comment on the draft permit modification according to Condition VIII.N.3 of this permit.

**VIII.J.7.** If, after considering all public comments, the Administrative Authority determines that the Risk Management Plan is adequate and complete, the Administrative Authority will issue a public notice for final approval the Class 3 permit modification. The resultant modified permit will include schedules for remedy implementation as well as financial assurance provisions as required by Condition VIII.A.5 of this permit.

## **VIII.K. DETERMINATION OF NO FURTHER ACTION**

### **VIII.K.1. NFA-ATT DETERMINATIONS FOR SPECIFIC SWMUs/AOCs**

**VIII.K.1.a.** Based on the results of the site investigations, screening, risk evaluations and risk management activities, the permittee may request a NFA-ATT determination for a specific SWMU/AOC by submittal of a Class 1<sup>1</sup> permit modification (<sup>1</sup> requiring Administrative Authority approval) request under LAC 33:V.321.C.1. The NFA-ATT request must contain information demonstrating that there are no releases of hazardous constituents from a particular SWMU/AOC that pose a threat to human health and/or the environment.

The basis for the determination of NFA-ATT shall follow the guidelines as described in the RECAP (Section 1.2.1 of RECAP) for each AOI, depending on the MO used.

**VIII.K.1.b.** If, based upon review of the permittee's request for a permit modification, the results of the site investigations, and other information the Administrative Authority determines that releases or suspected releases from an individual SWMU/AOC which were investigated either are non-existent or do not pose a threat to human health and/or the environment, the Administrative Authority may grant the requested modification.

**VIII.K.1.c.** In accordance with LAC 33:V.321.C.1.a.ii, the permittee must notify the facility mailing list within ninety (90) days of the Administrative Authority's approval of the Class 1<sup>1</sup> permit modification (<sup>1</sup> requiring Administrative Authority approval) request.

### **VIII.K.2. FACILITY-WIDE NFA-ATT DETERMINATION**

**VIII.K.2.a.** Upon the completion of all activities specified in the Risk Management Plan and after all SWMUs and AOCs at the facility have been remediated according to the standards dictated by the selected RECAP MO,

the permittee shall submit a summary report supporting a determination of NFA-ATT on a facility-wide basis.

**VIII.K.2.b.** The summary report must include a historical narrative for each SWMU/AOC at the site that includes a summary of the investigation, sampling & analysis, remedial, and confirmatory sampling activities leading to the NFA-ATT request. The basis for the determination of NFA-ATT shall follow the guidelines as described in the RECAP (Section 1.2.1 of RECAP) for each AOI, depending on the MO used. The facility-wide NFA-ATT determination must consider any newly-identified SWMUs/AOCs discovered after submittal of the Risk Management Plan.

**VIII.K.2.c.** The Administrative Authority will review and evaluate the summary report and subsequently either inform the permittee in writing that the report is acceptable for public review or issue a notice of deficiency.

**VIII.K.2.d.** If the Administrative Authority determines the summary report does not fully demonstrate that all remedial objectives have been satisfied, the Administrative Authority shall notify the permittee in writing of the summary report's deficiencies and specify a due date for submittal of a revised summary report.

**VIII.K.2.e.** After the Administrative Authority has determined the facility-wide NFA-ATT summary report is acceptable for public review, the Administrative Authority shall inform the permittee in writing and instruct the permittee to submit the summary report as a Class 3 permit modification request in accordance with the requirements of LAC 33:V.321.C.3.

**VIII.K.2.f.** After conclusion of a 60-day comment period, the Administrative Authority will either grant or deny the Class 3 permit modification request. In addition the Administrative Authority must consider and respond to all significant comments received during the 60-day comment period.

**VIII.K.2.g.** If, based upon review of the permittee's Class 3 permit modification request, the results of the site investigations, confirmatory sampling, and other pertinent information, the Administrative Authority determines that all SWMUs and AOCs have been remediated to the selected MO and no further action at the facility is warranted, the Administrative Authority will grant the modification request.

**VIII.K.2.h.** If the Class 3 Modification request is granted, the Administrative Authority shall prepare a draft permit incorporating the proposed changes in accordance with LAC 33:V.703.C and solicit public comment on the draft permit modification according to Condition VIII.N.4 of this permit.

**VIII.K.2.i.** If, after considering all public comments, the Administrative Authority determines that all activities specified in the Risk Management Plan

have been completed and that all SWMUs and AOCs have been remediated to the selected MO, the Class 3 permit modification for facility-wide NFA-ATT will receive final approval. The CAS permit conditions will remain a part of the modified permit in the event that the remedial actions taken fail to maintain the established performance standard and to address any SWMUs/AOCs discovered at a later date.

### **VIII.K.3. CONTINUED MONITORING**

If necessary to protect human health and/or the environment, a determination of NFA-ATT shall not preclude the Administrative Authority from requiring continued monitoring of air, soil, groundwater, or surface water, when site-specific circumstances indicate that releases of hazardous waste or hazardous constituents are likely to occur.

### **VIII.K.4. ADDITIONAL INVESTIGATIONS**

A determination of NFA-ATT shall not preclude the Administrative Authority from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates a release or likelihood of a release from a SWMU/AOC at the facility that is likely to pose a threat to human health and/or the environment. In such a case, the Administrative Authority shall initiate a modification to the Permit according to LAC 33:V.321.

## **VIII.L. NOTIFICATION REQUIREMENTS FOR AND ASSESSMENT OF NEWLY-IDENTIFIED SWMUs AND POTENTIAL AOCs**

**VIII.L.1.** The permittee shall notify the Administrative Authority, in writing, of any newly identified SWMUs and potential AOCs (i.e., a unit or area not specifically identified during previous corrective action assessments, RFA, etc.), discovered in the course of ground water monitoring, field investigations, environmental audits, or other means, no later than thirty (30) days after discovery. The permittee shall also notify the Administrative Authority of any newly-constructed land-based SWMUs (including but not limited to, surface impoundments, waste piles, landfills, land treatment units) and newly-constructed SWMUs where any release of hazardous constituents may be difficult to identify (e.g., underground storage tanks) no later than thirty (30) days after construction. The notification shall include the following items, to the extent available:

**VIII.L.1.a.** The location of the newly-identified SWMU or potential AOC on the topographic map required under LAC 33:V.517.B. Indicate all existing units (in relation to other SWMUs/AOCs);

**VIII.L.1.b.** The type and function of the unit;

**VIII.L.1.c.** The general dimensions, capacities, and structural description of the unit (supply any available drawings);

**VIII.L.1.d.** The period during which the unit was operated;

**VIII.L.1.e.** The specifics, to the extent available, on all wastes that have been or are being managed at the SWMU or potential AOC; and

**VIII.L.1.f.** Results of any sampling and analysis required for the purpose of determining whether releases of hazardous waste including hazardous constituents have occurred, are occurring, or are likely to occur from the SWMU/AOC.

**VIII.L.2.** Based on the information provided in the notification, the Administrative Authority will determine whether or not the area is a newly-identified SWMU or AOC. If the area is determined to be a newly-identified SWMU or AOC, the Administrative Authority will inform the permittee in writing and request that the permittee submit a Class 1<sup>1</sup> permit modification (<sup>1</sup>requiring Administrative Authority approval) request under LAC 33:V.321.C.1 to add the newly-identified SWMU/AOC to Appendix 1, Table 1 of this permit.

Further, the Administrative Authority will determine the need for further investigations or corrective measures at any newly identified SWMU or AOC. If the Administrative Authority determines that such investigations are needed, the Administrative Authority may require the permittee to prepare a plan for such investigations. The plan for investigation of SWMU or AOC will be reviewed for approval as part of the current CAS Investigation Work plan or a new CAS Investigation Work plan. The results of the investigation of any newly-discovered SWMU/AOC shall be incorporated into the CSM.

#### **VIII.M. NOTIFICATION REQUIREMENTS FOR NEWLY-DISCOVERED RELEASES AT A SWMU OR AOC**

The permittee shall notify the Administrative Authority of any release(s) from a SWMU or AOC of hazardous waste or hazardous constituents discovered during the course of ground water monitoring, field investigation, environmental auditing, or other means. The notification must be in accordance with the procedures specified in Conditions II.E.16 through II.E.20 of this permit and based upon the nature, extent, and severity of the release. Such newly discovered releases may be from newly identified SWMUs or AOCs, newly-constructed SWMUs, or from SWMUs or AOCs for which, based on the findings of the CSM, completed RECAP Report, or investigation of an AOC, the Administrative Authority had previously determined no further investigation was necessary. The notification shall include information concerning actual and/or potential impacts beyond the facility boundary and on human health and the environment, if available at the time of the notification.

The Administrative Authority may require further investigation and/or interim measures for the newly identified release(s), and may require the permittee to prepare a plan for the investigation and/or interim measure. The plan will be reviewed for approval as part of the CAS Investigation Work plan or a new CAS Investigation Work plan. The Permit will be

modified to incorporate the investigation, according to the Class 1<sup>1</sup> permit modification (<sup>1</sup> requiring Administrative Authority approval) procedures under LAC 33:V.321. The results of the investigation of any newly-identified release(s) shall be incorporated into the CSM.

## **VIII.N. PUBLIC PARTICIPATION REQUIREMENTS**

Public participation is an essential element in the implementation of any corrective action program at the facility. The CAS promotes the early and continued involvement of stakeholders in site remediation activity during permit issuance, renewal, or modification. The public is invited to review and comment on the corrective action requirements contained in any draft permitting decisions or draft permit modification documents and the associated plans and reports submitted by the permittee. The Administrative Authority reserves the right to require more extensive public participation requirements based upon site-specific conditions and other relevant factors (e.g., compliance history, potential offsite impact, community interest, etc.). At a minimum, the public participation requirements shall include the following.

### **VIII.N.1. NFA-ATT Determinations for Specific SWMUs/AOCs**

Based on the results of the site investigations, screening, risk evaluations and risk management activities, the permittee may request a NFA-ATT determination for a specific SWMU/AOC by submittal of a Class 1<sup>1</sup> permit modification request (<sup>1</sup> requiring Administrative Authority approval) under LAC 33:V.321.C.1. The permittee must notify the facility mailing list within 90 days of the Administrative Authority's approval of the Class 1<sup>1</sup> permit modification request, in accordance with LAC 33:V.321.C.1.a.ii and Condition VIII.K.1.c of this permit.

### **VIII.N.2. Draft Permitting Decision**

The public may review and comment on the terms and conditions of the CAS during the public notice and comment period of the draft permitting decision. The Administrative Authority shall issue public notice upon preparation of the draft permitting decision in accordance with LAC 33:V.715. During the forty-five (45) day public comment period, the Administrative Authority will accept public comments on the draft permitting decision. At the end of the public comment period, the Administrative Authority will consider and address all public comments and make any necessary revisions to the draft permitting decision. After addressing all public comments, the Administrative Authority will issue a public notice for issuance of the final permitting decision. The final permitting decision will include a "Responsiveness Summary" detailing all comments received on the draft permitting decision and the actions taken (if necessary) to correct the draft before issuance of the final permitting decision.

### **VIII.N.3. Final Remedy Selection**

The public may review and comment on the terms and conditions of the Risk Management Plan as described in Conditions VIII.J.4 through VIII.J.7 of this permit.

If after addressing all public comments the Administrative Authority determines that the Risk Management Plan is satisfactory, the Administrative Authority will prepare a draft permit modification document in accordance with LAC 33:V.703.C.

The draft permit modification document will include a "Basis of Decision". The "Basis of Decision" will identify the proposed remedy for corrective action at the site and the reasons for its selection, describe all other remedies that were considered, and solicit for public review and comments on the Risk Management Plan included in the draft permit modification document.

After addressing all public comments, the Administrative Authority will issue a public notice for issuance of the final permit modification. The final permit modification will include a "Responsiveness Summary" detailing all comments received on the draft permit modification and the actions taken (if necessary) to correct the draft before issuance of the final permit modification.

#### **VIII.N.4. Facility-Wide NFA-ATT**

Upon the completion of all activities specified in the Risk Management Plan and after all facility remedial objectives have been met, the permittee may submit a summary report for a determination of NFA-ATT on a facility-wide basis in accordance with Condition VIII.K.2 of this permit. The public may review and comment on the summary report as described in Condition VIII.K.2.b. If after addressing all public comments the Administrative Authority determines that all SWMUs and AOCs have been remediated to the selected MO and no further action at the facility is warranted, the Administrative Authority will prepare a draft permit modification document in accordance with LAC 33:V.703.C.

The draft permit modification document will include a "Basis of Decision". The "Basis of Decision" will provide a summary detailing contamination sources, site investigations, the MO selected for the facility, facility remedial standards, remedial actions, and sampling results demonstrating that the facility remedial standards have been achieved.

After addressing all public comments, the Administrative Authority will issue a public notice for issuance of the final permit modification. The final permit modification will include a "Responsiveness Summary" detailing all comments received on the draft permit modification and the actions taken (if necessary) to correct the draft before issuance of the final permit modification.

#### **VIII.O. DISPUTE RESOLUTION**

The Permittee must follow the procedures detailed in Conditions VIII.O.1 through VIII.O.6 below to dispute a judgment by or requirement from the Administrative Authority regarding the corrective action requirements of this permit. For purposes of dispute resolution, the Administrative Authority is the Assistant Secretary of LDEQ's Office of Environmental Services. Such actions that may be disputed include, but are not limited to: the requirements



under Conditions VIII.L and M; implementation of work plans; approval of documents; scheduling of any work; or selection, performance, or completion of any corrective action. The Permittee's failure to follow the procedures set forth in Condition VIII.O will constitute a waiver of its right to further consider the dispute.

**VIII.O.1.** The parties (i.e., the LDEQ and the Permittee) shall use their best efforts to informally and in good faith resolve all disputes or differences of opinion. If, however, disputes arise concerning the corrective action which the parties are unable to resolve informally, the following procedures shall apply. If the Permittee disputes its ability to meet a specific deadline or directive, then the Permittee is obligated to advise the Administrative Authority of the issue at least 14 days in writing in advance of the deadline.

**VIII.O.2.** The Administrative Authority shall provide the Permittee written notice of its disapproval or modification within 30 days. The written notice of disapproval or modification shall set forth the reasons for the disapproval or modification.

**VIII.O.3.** If the Permittee disagrees, in whole or in part, with any such written notice, the Permittee shall notify the Assistant Secretary of LDEQ's Office of Environmental Services, in writing, within 14 days of receipt of the written notice.

**VIII.O.4.** The Permittee and the pertinent LDEQ staff shall use their best efforts to informally and in good faith resolve the dispute. Accordingly, the Permittee is entitled to meet with LDEQ staff in person at the Administrative Authority's office or by teleconference, if it so desires, in order to resolve the dispute.

**VIII.O.5.** If the Permittee and the LDEQ staff are unable to resolve the dispute, the Permittee may make a written request for a final decision by the Administrative Authority. The written statement should include, at a minimum, the specific points of dispute, the position the Permittee maintains should be adopted as consistent with the Permit requirements and the basis therefore, any matters which it considers necessary for proper determination of the dispute, and whether the Permittee requests an informal conference in front of the Administrative Authority.

**VIII.O.6.** Subsequently, the Administrative Authority will issue a final decision within 30 days of the request.

**Table 1: Corrective Action Strategy Notification and Reporting Requirements**

Below is a summary of the major notifications and reports that may be required by the Administrative Authority under the Corrective Action Strategy of this permit in the event of releases requiring RCRA corrective action. The Administrative Authority will notify the permittee of the notification and reporting requirements during the scoping meeting or another applicable stage of the corrective action process. For AOCs identified in Appendix 1 some activities may have been accomplished, such as investigation, interim measures, corrective action, source removal actions and/or groundwater remedial actions. For the AOCs identified in Appendix 1, the required action and/or due dates may vary. Applicable actions for the AOCs listed in Appendix 1 will be determined during the CAS Scoping Meeting.

<b>ACTION</b>	<b>DUE DATE</b>
Submit Notice of Intent to request use of the CAS to the Administrative Authority for review and comment (Condition VIII.B.1)	Within sixty (60) days of the effective date of this permit (if facility corrective action is required)
CAS Scoping Meeting held between facility and Administrative Authority (Condition VIII.B.2)	Within sixty (60) days of submittal of the Notice of Intent
Submit Progress Reports on all activities to the Administrative Authority (Condition VIII.C.1)	Schedule to be determined by the Administrative Authority on a case-by-case basis
Make available other reports relating to corrective action to the Administrative Authority (Condition VIII.C.2)	Upon request of the Administrative Authority
Provide briefings to the Administrative Authority (Condition VIII.C.3)	As necessary and upon request by the Administrative Authority
Submit Conceptual Site Model (CSM) (Condition VIII.D) and facility Performance Standards (Condition VIII.A.2) to the Administrative Authority	Within one-hundred and twenty (120) days after the scoping meeting
Perform Interim Measures (Condition VIII.E)	As determined by the Administrative Authority on a case by case basis
Submit Corrective Action Strategy (CAS) Work plan for the facility investigation to the Administrative Authority (Condition VIII.F)	Within one-hundred and eighty (180) days after the CAS Scoping Meeting
Implement site investigation activities under CAS Investigation Work plan according to approved schedule (Condition VIII.G)	Within fourteen (14) days of receipt of approval by the Administrative Authority
Submit RECAP Report to the Administrative Authority (Condition VIII.H)	Within ninety (90) days of completion of the site investigation
Submittal of Remedial Alternatives Study (RAS) to the Administrative Authority (Condition VIII.I)	Within ninety (90) days of completion of approval of the RECAP Report by the Administrative Authority
Submit Risk Management Plan to the Administrative Authority (Condition VIII.J)	Within sixty (90) days of approval of the RAS by the Administrative Authority
Submit requests for unit specific and facility-wide NFA-ATT determinations to the Administrative Authority (Condition VIII.K)	As necessary
Notification of newly-identified SWMUs and potential AOCs (Condition VIII.L)	Thirty (30) days after discovery
Notification of newly-discovered releases (Condition VIII.M)	According to the requirements of Conditions II.E.16 through II.E.20 of this permit

## APPENDIX 1: SUMMARY OF CORRECTIVE ACTION ACTIVITIES

The intent of Appendix 1 is to provide an overview of the history and current status of the corrective action process at the site at the time of issuance of the final permit and may not necessarily provide a definitive regulatory determination for a particular SWMU or AOC. The classification of an individual SWMU or AOC is subject to change by the Administrative Authority based on future geological/hydrogeological conditions and future available information available to the Administrative Authority.

<b>AOC or SWMU Number/Area Name</b>	<b>AOC/SWMU Description</b>	<b>Corrective Action Designation<sup>1</sup></b>	<b>Comments/History and/or Current Status</b>
Solidification Building Subsurface	Subsurface groundwater beneath the former solidification building	Assessment monitoring in accordance with GW Sampling and Analysis Plan (EDMS # 41312141)	Above-ground portions clean closed in August, 1996 (EDMS # 5701138); Subsurface monitored in accordance with GW Sampling and Analysis Plan (EDMS # 41312141)
Former Landfarm Area	Subsurface groundwater beneath the former landfarm	Assessment monitoring in accordance with GW Sampling and Analysis Plan (EDMS # 41312141)	Monitored in accordance with GW Sampling and Analysis Plan (EDMS # 41312141)

<sup>1</sup> Details of closures and current status documented in EDMS (Electronic Document Management System), document # 41321305 "Summary Tables of State and Federal Consent Decree's and Status", dated 05/09/2009 and "Groundwater Sampling and Analysis Plan" (EDMS # 41312141) dated 05/13/2009 or most recent approved version, and Detection Monitoring System Optimization Plan (EDMS # 37458674) dated 08/06/2009 or most recent approved version.

<sup>2</sup> SWECO: Southwest Environmental Company

<sup>3</sup> BFI: Browning Ferris Industries

# **ATTACHMENT**

# **1**

**ATTACHMENT 1**  
**LIST OF FACILITY DOCUMENTS INCORPORATED**  
**IN THE PERMIT BY REFERENCE**  
**LAD 000 618 298-PC-RN-1**  
**AI#323**

<b>DOCUMENT TYPE</b>	<b>APPLICATION /DOCUMENT DATE</b>	<b>ELECTRONIC DATABASE MANAGEMENT SYSTEM (EDMS) DOCUMENT ID<sup>1</sup></b>	<b>COMMENTS</b>
Contingency Plan	02/07/2009	35711736	Renewal Application: Volume I
Post-closure Cost Estimate	02/07/2009	35711736	Renewal Application: Volume I
Waste Analysis Plan	02/07/2009	35711736	Renewal Application: Volume I
Personnel Training Plan	02/07/2009	35711736	Renewal Application: Volume I
Security Plan	02/07/2009	35711736	Renewal Application: Volume I
Inspection Plan	02/07/2009	35711736	Renewal Application: Volume I
Detection Monitoring System Optimization Plan	08/06/2008	37458674	Identifies detection, assessment, vertical and horizontal point of compliance, and corrective action groundwater monitoring wells.
Groundwater Sampling and Analysis Plan	05/13/2009	41312141	Identifies constituents of concern, groundwater sampling and analysis frequency, and other related parameters for conducting groundwater monitoring and/or corrective action.  Renewal Application: Response to NOD II

<sup>1</sup> Electronic Database Management System (EDMS) location



# **ATTACHMENT**

## **2**

**GROUNDWATER SAMPLING AND  
ANALYSIS PLAN**

**CECOS INTERNATIONAL  
LIVINGSTON FACILITY**

**28422 FROST ROAD  
LIVINGSTON, LA 70754**

**LAD 000618298**

**AI# 323**

**May 2009**

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## **1. INTRODUCTION**

### **1.1 Overview**

Geosyntec Consultants (Geosyntec) was retained by CECOS International (CECOS) to revise the groundwater sampling and analysis plan for the CECOS Facility located in Livingston, Louisiana (Figure 1). This Groundwater Sampling and Analysis Plan provides groundwater monitor well information, sampling frequency and analyses to be performed, and the basic laboratory requirements for obtaining valid, defensible data.

This revised Groundwater Sampling and Analysis Plan was developed to incorporate recent requested changes to the groundwater monitoring program outlined in our memorandum dated August 6, 2008. In a letter dated September 11, 2008, the Louisiana Department of Environmental Quality (LDEQ) approved the proposed monitoring network modification with the stipulation that monitor wells MW-47, MW-49, MW-84, and MW-93 be retained for monitoring. In a letter dated April 14, 2009, LDEQ required that these modifications be performed and provided in a revised Sampling and Analysis Plan for the Post-Closure Permit Renewal. The purpose of this document is to incorporate these changes.

### **1.2 Groundwater Sampling and Analysis Plan Organization**

The remainder of the Groundwater Sampling and Analysis Plan is summarized below.

- **Section 2** – describes the overall groundwater monitoring program and identifies the detection and assessment monitoring program wells;
- **Section 3** – provides monitor well inspection, gauging and development procedures;
- **Section 4** – describes groundwater sample collection, preservation, and record-keeping protocols;
- **Section 5** – describes the quality assurance/quality control program; and
- **Section 6** – describes the groundwater monitoring record-keeping requirements and contents of reports.

## **2. GROUNDWATER MONITORING PROGRAM**

Groundwater monitoring programs conducted at the CECOS Livingston Facility include a detection monitoring program and an assessment monitoring program. Figure 2 provides a summary of existing on-site wells and piezometers. The detection monitoring program monitors the groundwater around the perimeter and underneath the closed disposal cells at the Facility. Assessment monitoring is performed in the area of the Former Landfarm and the Solidification Building.

### **2.1 Detection Monitoring Program**

The general hydrostratigraphic units beneath the site consists of four (4) water-bearing strata designated as units A1, A2, B1, and B2. Two (2) principal water-bearing zones, designated as Zone A and Zone B, delineate these four (4) uppermost water-bearing strata. The detection system monitors both Zone A and Zone B. A site plan illustrating the location of the closed disposal cells and the location of each of the detection monitor wells and piezometers is presented in Figure 3.

The detection monitoring system installed around the perimeter of the closed disposal cells consists of forty (40) groundwater monitor wells. Each of the wells is strategically placed hydraulically upgradient or downgradient of the closed cells according to the south-southeasterly site groundwater flow direction. Piezometers are also located in Zone A and Zone B to provide additional groundwater potentiometric surface data. The piezometers are summarized in Table 2, and identified in Figure 2.

#### **2.1.1 Detection Groundwater Sampling and Analysis**

Monitor wells included in the detection monitoring program will be sampled semi-annually to ensure that site groundwater is not impacted from the closed waste disposal cells. Groundwater sampling and analysis activities will be conducted in accordance with the Facility sampling and analysis procedures presented in this plan.

All groundwater samples will be shipped to an independent laboratory licensed by the LDEQ. Groundwater samples from non point of compliance (POC) wells will be analyzed semi-annually for indicator parameters and volatile organic compounds (VOCs) (Method 8260B). The indicator parameters will include arsenic (Method 7060A), chromium (Method 6010B), and total phenols (Method 9065). Groundwater temperature and pH will also be measured in samples collected from each well using

field instruments (at the time of sampling). Temperature and pH results will be recorded on a well sampling log (Appendix A).

Groundwater samples will also be analyzed annually from POC wells for LAC 33.V.Chapter 33 Table 4 (Appendix IX) constituents which include semi-volatile organic compounds (Method 8270), pesticides/polychlorinated biphenyls (Method 8081A/8082), 2,4,5-TP silvex and 2,4-D (Method 8151A), insecticides (8141A), dioxins/furans (8280A), sulfide (SM 4500SD), total cyanide (Method 9012A), and priority pollutant metals.

Per LAC 33.V.3317.G and G.2 (Detection Monitoring Program), if it is determined that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents per the GWSAP at any monitoring well at the compliance point (as shown in Figure 3), the well will be sampled to determine if LAC 33.V.3325 Table 4 (Appendix IX) constituents are present, and if so, in what concentrations. Groundwater samples collected from wells located on the point of compliance line (as shown in Figure 3) and for which a Compliance Monitoring Program has been implemented will be analyzed annually for Appendix IX constituents per LAC 33.V.3319.G.

#### **2.1.2 Data Evaluation**

A data evaluation will be performed on the analytical results from each semi-annual event per LAC 33.V.3317.F. If any organic constituents or phenols are detected, or if arsenic or chromium exceed statistical limits in any of the detection wells, the wells in question will be resampled as soon as practical. An initial statistical increase (SSI) is indicated by organic constituents or phenols occurring above reporting limits or for arsenic and chromium at a concentration that exceeds an interwell upper prediction limit and produces a statistically significant upward trend. Initial SSIs will not be considered significant unless confirmed by resampling. Statistical analysis methods will comply with LAC 33.V.3315.H. If the resampling results confirm a constituent detection in any of the wells in question, the LDEQ will be notified in writing within seven (7) days of the confirmation. A groundwater quality assessment program will then be submitted to the LDEQ within fifteen (15) days of the notification.

The assessment plan describes CECOS' approach to determining the source and extent of the potential contamination such as, but not necessarily limited to:

1. Performing a trend analysis of the data for at least four sampling events to confirm the detection and to determine the absence or presence of a continuous source;
2. Evaluating the analytical results from adjacent monitor wells;
3. Sampling leak detection systems of adjacent closed disposal units (if any) and analyzing those samples for the constituents of concern; and/or
4. If necessary, collecting groundwater data from adjacent monitor wells that are not currently sampled and/or installing temporary or permanent boreholes/monitor wells and collecting groundwater samples for analytical testing from each.

## **2.2 Assessment Monitoring Programs**

Assessment monitoring programs are maintained in the Former Landfarm and Solidification Building Areas. Groundwater monitor wells and piezometers were installed in each of these areas after low-level concentrations of VOCs were detected in Zone A. A list of the assessment monitor wells in each area is presented in Table 3. The location of each assessment monitor well within the Facility is presented in Figure 3.

### **2.2.1 Former Landfarm Area**

Landfarm material was discovered south of Secure Cell 14 during the excavation of that cell in 1987. A field investigation of the Former Landfarm Area was conducted in 1988 which defined the boundaries of contamination in the area. A remedial action plan was developed and remedial activities were initiated in 1988. Contaminated soil remaining in the Former Landfarm Area was removed leaving only low concentration of residual groundwater contamination. Four (4) groundwater monitor wells (MW-6R, MW-14R, LF-1, and LF-5) were installed in the Zone A and Zone B to monitor the residual contamination. No organic compounds have been detected above 1 part per million (ppm) in these monitor wells.

### **2.2.2 Solidification Building Area**

The Solidification Building was placed in operation on July 7, 1985. Prior to receiving waste, water samples were collected from the leak detection system to establish background conditions. Chemical analysis of these samples revealed the presence of trace organic contaminants (primarily 1,2-dichloroethane and 1,1,2-trichloroethane). Subsequent groundwater assessments and monitoring events have shown that the area

affected by the contamination is not extensive and the contaminants of concern have not been detected in the groundwater in concentrations above 2 ppm.

Ten (10) monitor wells (MW-37 thru MW-43, MW-70, MW-89, and MW-33R) were installed in the Solidification Building Area to monitor the presence of VOCs in groundwater.

### **2.2.3 Assessment Groundwater Sampling and Analysis**

The monitor wells in each assessment area will be sampled semi-annually to monitor the concentrations of detectable organic compounds and the potential movement of these compounds in the groundwater. Groundwater sampling and analysis activities will be conducted in accordance with Facility sampling and analysis procedures presented in this plan. The groundwater samples will be shipped to an independent laboratory licensed by the LDEQ for analytical testing. Semi-annual groundwater samples collected from the Solidification Building Area monitor wells will be analyzed for priority pollutant VOCs (Method 8260B), iron (Method 6010A), manganese (Method 6010A), antimony (Method 6010A) and thallium (Method 7841) based upon extensive historical sampling data. Semi-annual groundwater samples collected from the Former Landfarm Area monitor wells will be analyzed for priority pollutant VOCs (Methods 8260) only, based upon extensive historical sampling data (Table 3). In addition, the groundwater from the recovery wells in the area of the Solidification Building (SRW-1) and former Landfarm Area (LFR-1, LFR-2, LFR-3, and LFR-4) will be analyzed for VOCs.

### **3. MONITOR WELL GAUGING AND DEVELOPMENT**

#### **3.1 Monitor Well Inspection and Maintenance**

The above-ground portion of each monitor well and piezometer at the Facility will be inspected semi-annually for signs of deterioration or damage. Any repairs or maintenance, if warranted upon inspection, will be performed as soon as practicable to preserve the integrity of the Facility groundwater monitoring system.

The total depth of each well and piezometer will be measured biennially. If excess siltation (silt occupies > 10% of the screened interval) is noted during measurement, the well or piezometer will be redeveloped in accordance with "Monitor Well Installation Specifications-Groundwater Monitoring Program – CECOS International, Livingston Facility", March 1994 and the "Construction of Geotechnical Boreholes and Groundwater Monitoring Systems," prepared by the Louisiana Department of Environmental Quality and the Louisiana Department of Transportation and Development, dated December 2000.

#### **3.2 Groundwater Sampling Protocol**

To minimize the possibility of cross-contamination between monitor wells, groundwater samples will be collected from areas at the Facility in order of increasing incidence of organic constituents detected. The present groundwater program sampling order at the Facility is as follows:

1. Detection Monitoring Program; and
2. Assessment Monitoring Program:
  - a. Former Landfill Area
  - b. Solidification Building Area

The individual monitor wells located in the areas shown above will also be sampled in order of increasing incidence of organic constituents detected. The order in which those areas and monitor wells are sampled may change based on sampling analytical results.



Disposable or well-dedicated sampling equipment (bailers, rope, gloves, etc.) will be utilized whenever possible to minimize the potential for cross contamination between sampling events. Non-disposable sampling equipment and monitoring equipment (bailers, downhole samplers, measuring tape, bowls, trowels, etc.) will be decontaminated by: 1) washing with "tap" water and a phosphate-free soap solution; and 2) triple-rinsing with distilled-deionized water. Decontaminated equipment will be allowed to air dry and placed in storage containers prior to sample collection.

### **3.3 Water Level Measurements**

Prior to any purging or sampling activity, the depth to water from the top of the casing will be measured and recorded at each monitor well. Water level indicator equipment will be constructed of chemically inert materials, and during mobilization preparation and following each monitoring point, will be decontaminated at each well with a non-phosphate detergent followed with a deionized water rinse. Decontamination water will be disposed of in each respective well's purge water containers. Water levels will be measured with a precision of  $\pm 0.01$  foot. Each monitor well has a reference elevation point located at the wellhead seal access port measured by a licensed surveyor. This reference point elevation is measured in relation to Mean Sea Level (MSL).

The water level indicator will be lowered down into the well, and the water level will be recorded when the indicator has sounded. The depth to the water surface will be referenced to the top of the riser pipe. The date, time, monitor well number, depth to water surface, name of person recording the data, and weather conditions will be recorded on a field log sheet as presented in Appendix A. The tape measure and water level indicator will be decontaminated according to the procedures described in Section 3.2 prior to taking measurements at other well locations.

### **3.4 Monitor Well Purging**

Prior to collecting samples, stagnant (standing) water in each well will be purged by removing a volume of water at least three times the volume of water initially contained in the well. If a well does not recharge at a sufficient rate to evacuate at least three volumes of water, the well will be bailed dry, and sampling will begin after the well has sufficiently recovered. No more than twenty-four hours of time will be allowed to elapse between the time that the well is bailed dry and the time that samples are collected.

### 3.4.1 Purge Equipment

Monitor wells will be purged with submersible pumps or bailers. For wells that do not have dedicated equipment, non-dedicated purge equipment will be decontaminated with a non-phosphate detergent followed with multiple deionized water rinses prior to purging. Equipment rinsate blanks will be collected as described in Section 5.1.

### 3.4.2 Purge Volume

Monitor wells with low yield volumes will be purged to dryness. Moderate to high yield monitor wells will be purged a minimum of three (3) well volumes and to stabilization of field parameters temperature, conductivity and pH. Stabilization is defined as three consecutive measurements of specific conductance, temperature, and turbidity within  $\pm 10$  percent and three consecutive pH measurements. Field parameter measurements will be collected every three to five minutes and recorded on each Field Log (Appendix A). Water temperature, pH, and specific conductivity measurements will be taken to evaluate purging effectiveness. Groundwater specific conductivity and pH measurements are conducted as follows:

- After first standing water volume has been purged;
- After second standing water volume has been purged;
- After third standing water volume has been purged; and
- If the specific conductivity and pH have stabilized, the fourth and final measurements are taken.

The pH and specific conductivity/temperature meters will be calibrated daily according to manufacturer's specifications.

The initial volume of water in the well casing will be calculated as:

$$\text{Volume (gallons)} = (3.14)(r^2)(h)/231$$

Where:  $r$  = Inner casing inside diameter  $\div 2$  (in inches)

$h$  = Height of water column in the well (in inches) (equals well total depth minus initial measurement to water level).

### 3.4.3 Purge Water Management

On an individual monitor well basis, if purge water is historically contaminated or suspect due to prior monitoring analytical data, the purge water shall be stored in appropriate

containers until analytical results are available. After review of these analyses, proper arrangements for disposal or treatment of the water shall be made.

Purge water from wells in which volatile organic compounds were not detected will be discharged to the ground surface at each well location. Purge water from wells in which volatile organic compounds were detected will be managed on-site in the groundwater treatment plant or disposed of off-site in a permitted disposal Facility.

## **4. GROUNDWATER SAMPLE COLLECTION AND PRESERVATION**

### **4.1 Sample Collection Order**

After purging is complete, samples will be collected for subsequent analysis of the required parameters. Sample collection will occur immediately after purging if the well has sufficient recharge. The time interval between the completion of well purge and sample collection normally should not exceed twenty-four hours.

Samples will be collected and containerized according to the volatility of the requested analyses. A specific collection order is as follows:

- Field Parameters:
  - Temperature
  - Specific Conductivity
  - pH
  - Turbidity;
- Volatile Organic Compounds (VOCs);
- Semi-Volatile Organic Compounds (SVOCs);
- Inorganics (arsenic, chloride, chromium, etc.); and
- Phenol (Total)

A complete list of monitor wells, analyses, and testing frequencies are provided in Tables 1 and 3.

### **4.2 Sample Preservation and Analysis**

All samples will be containerized and preserved according to the specifications presented in Table 4. In the goal to obtain the most representative sample possible, preserving the sample for transportation and storage to the laboratory is critical.

Methods of preservation are intended to retard biological action, retard hydrolysis of chemical compounds and complexes, and reduce the volatility of constituents. Samples requiring refrigeration to four degrees Centigrade will be accomplished by placing the

sample containers immediately into coolers containing wet ice or the equivalent and delivering to the analytical laboratory as soon as possible.

Analytical procedures will be performed in accordance with test procedures outlined in EPA SW 846 and other technical publications by a laboratory licensed by the State of Louisiana. Method detection limits and/or practical quantitation limits for each analytical method are specified in the facility's post-closure permit. Requirements for sample containers, preservation, analytical methods, and method references for the various monitoring parameters are summarized in Table 4.

#### **4.3 Record Keeping**

##### **4.3.1 Field Logs**

All field information must be completely and accurately documented to become part of the final report for a monitoring event. All field information will be entered on a Field Data Sheet. See Appendix A for an example.

Information associated with the sampling program will be recorded in a permanent field log book. This log book will provide a permanent record of all field activities associated with the sampling and sample handling. Entries to the log book will be made with water resistant ink to prevent smearing. The minimum information recorded in the log book is listed in Appendix A. Information deemed to be constant (repetitive) will be recorded initially and will not be repeated at each successive sampling.

##### **4.3.2 Chain of Custody/Sample Container labels**

Proper chain of custody records are required to insure the integrity of the samples and the conditions of the samples upon receipt at the laboratory. The sample collector shall fill in all applicable sections and forward the original, with the respective sample(s), to the laboratory performing the analyses. Upon receipt of the samples at the laboratory, the sample coordinator is to complete the chain of custody, make a copy for his/her files, and make the original documents part of the final analytical report. A sample chain of custody form is provided in Appendix A.

All sample containers will be labeled to prevent misidentification. The following will be indicated on an adhesive label with a waterproof pen:

- Collector's name, date, and time of sampling;

- Sample identification number;
- Sample preservatives; and
- Test(s) to be performed on the sample.

## **5. QUALITY ASSURANCE/QUALITY CONTROL PROGRAM**

Quality assurance/quality control (QA/QC) samples will be collected to ensure that the data meets accuracy, precision, completeness, and comparability requirements. All QA/QC samples will be analyzed for VOCs.

### **5.1 Field QA/QC Samples**

Field QA/QC samples consist of two (s) primary areas of quality control. The first area is the quality control designed to prevent sample contamination from occurring in the field and/or shipping procedures. This is monitored in the trip blanks, field blanks, and equipment (rinsate) blanks. A basic description of each is provided below:

- Trip Blank – These samples will be prepared in the laboratory by filling the appropriate clean sample containers with organic-free water and adding the applicable chemical preservative, if any, for each type of sample. These containers are to be labeled “Trip Blank”, the analyses to be performed on each container indicated, and then shipped in the typical transportation cooler to the field and back to the laboratory along with the other sample set containers for a given event. This blank is tested to detect any contamination that may occur as a result of the containers, sample coolers, cleaning procedures, or chemical preservatives used. Trip blanks will consist of analysis of volatile organics and shall be taken and analyzed at a minimum of one per sampling event.
- Field Blank – Field blank containers will be prepared in the field at a routine sample collection point during a monitoring event by filling the appropriate sample containers with the field supply of organic-free water. This field supply water shall be the same water used for cleaning and decontamination of all field purge and sampling equipment. This blank is tested to detect contamination that may occur as a result of site ambient air conditions and serves as an additional check for contamination in the containers, sample transport coolers, cleaning procedures, and any chemical preservatives. Field blanks will consist of analysis of volatile organics and shall be taken and analyzed for each sampling event at a frequency of one field blank per twenty routine groundwater samples.
- Equipment (Rinsate) Blank – These blanks are used to check the purge equipment cleanliness. Equipment blanks are obtained by pouring analyte-free water over or through the purge device, collecting the water in a sample container, and returning to the laboratory for analysis with the samples. If non-dedicated sampling

equipment is used, one equipment blank per twenty routine groundwater samples will be collected.

A second area of standard field QA/QC samples are matrix spike and matrix spike duplicates. These QA/QC samples are described as follows:

- Matrix Spike and Matrix Spike Duplicates – Matrix Spike and Matrix Spike Duplicates analyses are taken in the same manner as duplicates and allow sufficient volumes of sample to perform matrix spike and matrix spike duplicate analyses. Matrix spike/matrix duplicate samples will be collected once per sampling event.
- Matrix Spikes are those samples having a known amount of target analyte added at the lab to the sample prior to sample preparation and analysis. The matrix spike is used to determine the bias of a method in a given sample matrix.
- Matrix Spike duplicates are intralaboratory split samples spiked with identical concentrations of target analyte. The spiking occurs at the lab prior to sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.

## **5.2 Laboratory QA/QC Samples**

The laboratory will provide a QA/QC summary with the data report. For all samples analyzed, the report will include results on calibrations, surrogate standards and recoveries, method blanks, matrix spike and matrix spike duplicate relative percent differences, and chromatograms for each analysis as well as employed standards. Chain-of-Custody documents, laboratory bench sheets and relevant logbook pages will be submitted with the report.

## **5.3 Deliverables (General and Supplemental QA/QC)**

### **5.3.1 General Requirements**

For general reporting of quantitative results for groundwater monitoring projects, the following reporting requirements apply:

- Methodology Summary – a table will be required listing all the analytical test methods used in the analyses of the samples with a reference made for each to the method manual and the test method number.



- Summary of analytical results, indicating appropriate units, and reporting Practical Quantitation Limit (PQL), and supervisor approval – concentrations units must be consistently applied throughout the report. Data cannot be method blank corrected. It must be appropriately flagged.
- Chain-of-Custody Form – a separate form for each sample is not required. Name and organization of person taking sample, time and date of sampling, all custody changes, and all appropriate signatures must be included. All entries must be legible.

### **5.3.2 Supplemental QA/QC Reporting Requirements**

- Laboratory Chronicles – must include date of sampling, sample receipt, preservation, preparation, analysis, and supervisor approval signature.
- The document should be bound and paginated and shall contain a table of contents; set margins and binding appropriately so that the document is legible.
- Non-Conformance Summary for GC/MS Data Reports – must state if the following do not meet QA/QC requirements:
  - GC/MS Tune Specifications
  - GC/MS Tune Frequency
  - Calibration Frequency
  - Calibration Requirements – System Performance Check
  - Compounds, Calibration Check Compounds
  - Blank Contamination
  - Surrogate Recoveries
  - Sample Holding Times
  - Minimum Detection Limits

## **6. RECORD KEEPING AND REPORTING**

Records of groundwater analytical results, groundwater surface elevations, and data evaluations will be kept throughout the facility post-closure period.

Three (3) bound copies, measuring 8.5 inches by 11 inches, of a report of all groundwater sampling results will be submitted no later than 90 days after each sampling event. The report will be submitted on forms provided by the administrative authority and shall include at a minimum the following:

- a. Documentation of the chain-of-custody of all sampling and analyses;
- b. Scaled potentiometric surface map(s) showing monitor well locations and groundwater elevation with respect to MSL for each stratum monitored;
- c. Analytical results including copies of laboratory reports;
- d. Statistical evaluation data, as applicable; and
- e. Conclusions and recommendations associated with the reported data.

If substantial constituents of concern are detected in any monitor well with no previous detections, the well(s) will be resampled as soon as practical. If the detections are confirmed, the LDEQ will be notified within seven days of the receipt of the laboratory report.

## **TABLES**



Table 1  
Detection Monitoring Program Wells and Analytical Summary  
CECOS International, Livingston Facility

Well Number	Current Well Use	Zone Number	Parameters												
			VOCs (8260B)	Chromium (6010B)	Arsenic (7060A)	Total Phenols (3965)	SVOCs (8270C)	Pesticides (8081A)	Insecticides (8141A)	Herbicides (8151A)	PCBs (8082)	Dioxins/Furans (8280A)	Cyanide (9012A)	Sulfide (SM 4500SD)	Priority Pollutant Metals
D-RR	Detection	A2	S	S	S	S									
MW-15	Detection	B2	S	S	S	S									
MW-24R	Detection	B2	S	S	S	S									
MW-94	Detection	B2	S	S	S	S									
MW-47	Detection	A2	S	S	S	S									
MW-49	Detection	A2	S	S	S	S									
MW-76	Detection	A2	S	S	S	S									
MW-84	Detection	A2	S	S	S	S									
MW-93	Detection	A2	S	S	S	S									
MW-95	Detection	A2	S	S	S	S									
D-7	Detection	B2	S	S	S	S									
MW-8	Detection	B2	S	S	S	S									
MW-18	Detection	B1	S	S	S	S									
MW-83	Detection	B2	S	S	S	S									

Table 1  
Detection Monitoring Program Wells and Analytical Summary  
CECOS International, Livingston Facility

Well Number	Current Well Use	Zone Number	Parameters												
			VOCs (8260B)	Chromium (6010B)	Arsenic (7060A)	Total Phenols (9065)	SVOCs (8270C)	Pesticides (8081A)	Insecticides (8141A)	Herbicides (8151A)	PCBs (8082)	Dioxins/Furans (8280A)	Cyanide (9012A)	Sulfide (SM 4500SD)	Priority Pollutant Metals
MW-50	Detection	B1	S	S	S	S									
MW-68	Detection	B1	S	S	S	S									
MW-91	Detection	B1	S	S	S	S									
MW-96	Detection	B1	S	S	S	S									
MW-98	Detection	B1	S	S	S	S									
OW-2	Detection	B1	S	S	S	S									
OW-5B	Detection (POC Well)	B1	S	S	S	S	A	A	A	A	A	A	A	A	
#1R	Detection (POC Well)	B2	S	S	S	S	A	A	A	A	A	A	A	A	
#5R	Detection (POC Well)	B2	S	S	S	S	A	A	A	A	A	A	A	A	
MW-4	Detection (POC Well)	A2	S	S	S	S	A	A	A	A	A	A	A	A	
MW-5R	Detection (POC Well)	A2	S	S	S	S	A	A	A	A	A	A	A	A	
MW-12	Detection (POC Well)	B2	S	S	S	S	A	A	A	A	A	A	A	A	

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Table 1  
Detection Monitoring Program Wells and Analytical Summary  
CECOS International, Livingston Facility

Well Number	Current Well Use	Zone Number	Parameters												Priority Pollutant Metals	
			VOCs (8260B)	Chromium (6010B)	Arsenic (7060A)	Total Phenols (9065)	SVOCs (8270C)	Pesticides (8081A)	Insecticides (8141A)	Herbicides (8151A)	PCBs (8082)	Dioxins/Furans (8280A)	Cyanide (9012A)	Sulfide (SM 4500SD)		
MMW-13	Detection (POC Well)	B2	S	S	S	S	A	A	A							A
MMW-100	Detection (POC Well)	A2	S	S	S	S	A	A	A	A	A	A	A			A
MMW-25R	Detection (POC Well)	B2	S	S	S	S	A	A	A	A	A	A	A			A
MMW-33R	Detection (POC Well)	B2	S	S	S	S	A	A	A	A	A	A	A			A
MMW-73	Detection (POC Well)	B2	S	S	S	S	A	A	A	A	A	A	A			A
MMW-85	Detection (POC Well)	B2	S	S	S	S	A	A	A	A	A	A	A			A
MMW-88	Detection (POC Well)	B2	S	S	S	S	A	A	A	A	A	A	A			A
MMW-90	Detection (POC Well)	B2	S	S	S	S	A	A	A	A	A	A	A			A
MMW-41	Detection (POC Well)	A1	S	S	S	S	A	A	A	A	A	A	A			A
MMW-42	Detection (POC Well)	A1	S	S	S	S	A	A	A	A	A	A	A			A
MMW-70	Detection (POC Well)	A2	S	S	S	S	A	A	A	A	A	A	A			A





Table 1  
Detection Monitoring Program Wells and Analytical Summary  
CECOS International, Livingston Facility

Well Number	Current Well Use	Zone Number	Parameters												
			VOCs (8260B)	Chromium (6010B)	Arsenic (7060A)	Total Phenols (9065)	SVOCs (8270C)	Pesticides (8081A)	Insecticides (8141A)	Herbicides (8151A)	PCBs (8082)	Dioxins/Furans (8280A)	Cyanide (9012A)	Sulfide (SM 4500SD)	Priority Pollutant Metals
MW-89	Detection (POC Well)	A1	S	S	S	S	A	A	A	A	A	A	A	A	
L-344S	Detection (POC Well)	A2	S	S	S	S	A	A	A	A	A	A	A	A	
MW-101	Detection (POC Well)	B2	S	S	S	S	A	A	A	A	A	A	A	A	

Notes:  
 POC - Point of Compliance  
 VOCs - volatile organic compounds  
 SVOCs - semivolatile organic compounds  
 PCBs - polychlorinated biphenyls  
 A - annual  
 S - semiannual

**Table 2**  
**Groundwater Monitoring Piezometers**  
**CECOS International, Livingston Facility**

Piezometer	Zone Number	Screened Interval (ft bgs)
S-1	A2	20 to 30
S-2	A2	20 to 30
S-3	A2	20 to 30
S-4	A2	20 to 30
S-5	A2	17 to 27
S-6	A2	17 to 27
S-7	A2	17 to 27
S-8	A2	17 to 27
L-333S	A2	21 to 26
L-361S	A2	17.5 to 22.5
L-367S	A2	14.5 to 19.5
L-381S	A1	14.5 to 19.5
LF-2	A1	12.5 to 22.5
LF-3	A1	12.5 to 17.5
LF-4	A1	15 to 25
MW-27	A1	13 to 18
MW-29	A2	24 to 29
MW-32	A1	8 to 13
D-1	B1	50 to 60
D-2	B1	50 to 60
D-3	B1	50 to 60
D-4	B1	50 to 60
L-333D	B2	70 to 75
L-337D	B2	72.5 to 77.5
L-346D	B2	72.5 to 77.5
L-361D	B2	67.5 to 74.5
L-364D	B2	67.5 to 72.5
L-369D	B1	50 to 56
L-381D	B2	72.5 to 77.5
MW-85	B2	67 to 77

Notes:

ft bgs - feet below ground surface



COLOR

**Table 3**  
**Assessment Monitoring Program Wells and Analytical Summary**  
 CECOS International, Livingston Facility

Well Number	Area	Current Well Use	Zone Number	Parameters				
				VOCs (8260B)	Iron (6010A)	Manganese (6010A)	Antimony (6010A)	Thallium (7841)
MW-37	Solidification Building	Assessment Monitoring	A1	S	S	S	S	S
MW-38	Solidification Building	Assessment Monitoring	A1	S	S	S	S	S
MW-39	Solidification Building	Assessment Monitoring	A1	S	S	S	S	S
MW-40	Solidification Building	Assessment Monitoring	A1	S	S	S	S	S
MW-41 <sup>#</sup>	Solidification Building	Assessment Monitoring	A1	S	S	S	S	S
MW-42 <sup>#</sup>	Solidification Building	Assessment Monitoring	A1	S	S	S	S	S
MW-43	Solidification Building	Assessment Monitoring	A1	S	S	S	S	S
MW-70 <sup>#</sup>	Solidification Building	Assessment Monitoring	A2	S	S	S	S	S
MW-33R <sup>#</sup>	Solidification Building	Assessment Monitoring	B2	S	S	S	S	S
MW-89 <sup>#</sup>	Solidification Building	Assessment Monitoring	A1	S	S	S	S	S
SRW-1	Solidification Building	Discontinued Recovery Well	A1	S				
LF-1	Former Landfarm	Assessment Monitoring	A1	S				
LF-5	Former Landfarm	Assessment Monitoring	A1	S				
MW-14R	Former Landfarm	Assessment Monitoring	B2	S				
LFR-1	Former Landfarm	Discontinued Recovery Well	A1	S				
LFR-2	Former Landfarm	Discontinued Recovery Well	A1	S				
LFR-3	Former Landfarm	Discontinued Recovery Well	A1	S				
LFR-4	Former Landfarm	Discontinued Recovery Well	A1	S				

**Notes:**

# - well is used for assessment and detection monitoring.

VOCs - volatile organic compounds

SVOCs - semivolatile organic compounds

PCBs - polychlorinated biphenyls

S - semiannual

**Table 4**  
**Container, Preservation, and Holding Time Requirements**  
**Groundwater Sampling and Analysis Plan**  
**Geismar Facility**

Parameter	Method	Container	Sample Preservation	Holding Time
Volatile Organic Compounds	SW 846 Method 8260	Three - 40 mL glass jars with Teflon-lined septum	Cool to 4°C, Acidify to pH <2 with HCl, Zero headspace	14 Days
Semivolatile Organic Compounds	SW 846 Method 8270	Two - 1 L amber glass jars with Teflon Caps	Cool to 4°C	Extraction - 7 Days Analysis - 40 Days
Pesticides/PCBs/Herbicides	SW 846 Method 8081/8082/8151	Two - 1 L amber glass jars with Teflon Caps	Cool to 4°C	Extraction - 7 Days Analysis - 40 Days
Chromium	SW 846 Method 6010B	32 Oz. plastic jar	Cool to 4°C, Acidify to pH <2 with HNO <sub>3</sub>	6 Months
Arsenic	SW 846 Method 7060A	500 mL polypropylene	Cool to 4°C, Acidify to pH <2 with HNO <sub>3</sub>	6 Months
Insecticides	SW 846 Method 8141A	1 L amber glass jar	Cool to 4°C, preserve with Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Extraction - 7 Days Analysis - 40 Days
Dioxins/Furans	SW 846 Method 8280A	1 L amber glass jar	Cool to 4°C	30 Days
Cyanide	SW 846 Method 9012A	1 L Polyethylene	Cool to 4°C, preserve with NaOH to pH >12	14 Days
Sulfide	SM 4500SD	250 mL polypropylene	Cool to 4°C, preserve with zinc acetate and sodium hydroxide	7 Days
Priority Pollutant Metals	SW-846 6010B/7470A	32 Oz. plastic jar	Cool to 4°C, Acidify to pH <2 with HNO <sub>3</sub>	6 Months (Hg 28 days)
Total Phenols	SW 846 Method 9065	125 mL amber glass jar	Cool to 4°C, Acidify with H <sub>2</sub> SO <sub>4</sub>	28 Days

## **FIGURES**









# Site Monitor Well Layout Map

CECOS International Livingston Facility  
Livingston, Louisiana

Geosyntec  
consultants

Figure  
2

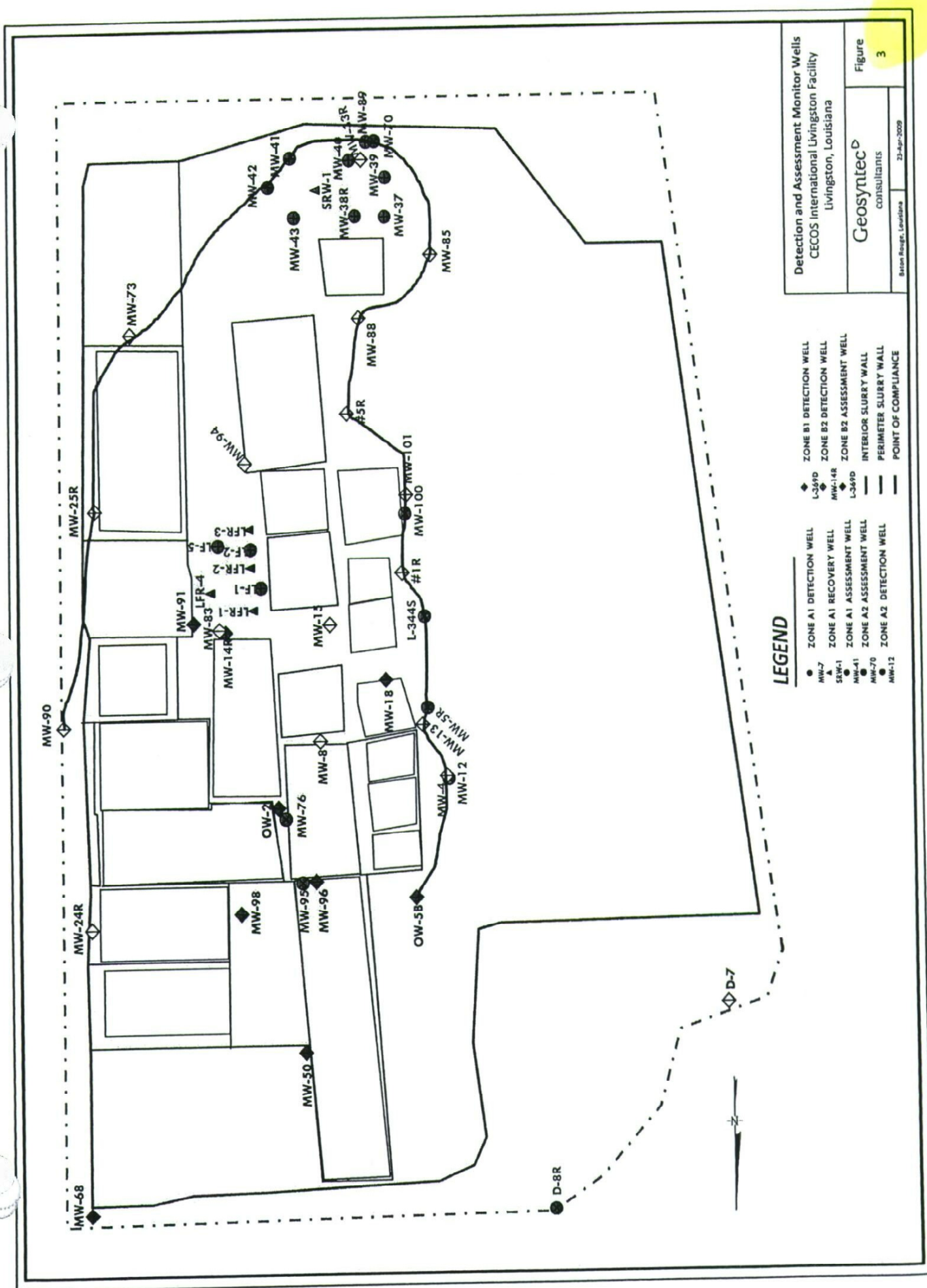
Baton Rouge, Louisiana 22-Apr-2009

## Legend

- ▲ Zone A1 Assessment Well (Solidification Basin Area)
- Zone A1 Assessment Well (Landfarm Area)
- Zone A1 Recovery Well
- ⊙ Zone A1 Detection Well
- ⊙ Zone A2 Detection Well
- ⊙ Zone B1 Detection Well
- ⊙ Zone B2 Detection Well

## Notes





## **APPENDIX A**

<b>CECOS International</b> Livingston Facility	<b>GROUNDWATER SAMPLING FIELD DATA SHEET</b> Well Number: _____ Project No.: _____																																																	
Project: _____ Date: _____ Time: _____ Personnel: _____ Weather Conditions: _____ Air Temp.: _____°F																																																		
Calibration: pH Meter Model: _____ Meter S/N: _____ Time: _____ Conductivity Meter Model: _____ Meter S/N: _____ Time: _____																																																		
<b>WELL DATA:</b> Casing Diameter: _____ <input type="checkbox"/> PVC <input type="checkbox"/> Other: _____ DEPTH TO : Static Water: _____ ft. Well Bottom: _____ ft. DATUM: <input type="checkbox"/> Top of Protective Casing <input type="checkbox"/> Top of Well Casing <input type="checkbox"/> Other: _____ CONDITION: Is Well clearly labeled? <input type="checkbox"/> Yes <input type="checkbox"/> No Is Prot. Casing in Good Cond.? (not bent or corroded) <input type="checkbox"/> Yes <input type="checkbox"/> No Is Concrete Pad Intact? (not cracked or frost heaved) <input type="checkbox"/> Yes <input type="checkbox"/> No Is Padlock Functional? <input type="checkbox"/> Yes <input type="checkbox"/> No Is Inner Casing Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No Is Inner Casing Properly Capped and Vented? <input type="checkbox"/> Yes <input type="checkbox"/> No  VOLUME OF WATER: $(d/24)^2 (23.5)(TD-WL) = \text{One Well Volume}$ (2"=0.163; 4"=0.853, 3"=0.367) Standing in well: _____ gal. To be purged: _____ gal.																																																		
<b>PURGE DATA:</b> METHOD: <input type="checkbox"/> Bladder Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Bailer <input type="checkbox"/> Centrifugal Pump <input type="checkbox"/> Peristaltic Pump <input type="checkbox"/> Other: _____ MATERIALS: Pump/Bailer: <input type="checkbox"/> Teflon® <input type="checkbox"/> Stainless Steel <input type="checkbox"/> PVC <input type="checkbox"/> Other: _____ Tubing/Rope: <input type="checkbox"/> Teflon® <input type="checkbox"/> Stainless Steel <input type="checkbox"/> PVC <input type="checkbox"/> Other: _____ PURGING EQUIPMENT: <input type="checkbox"/> Dedicated <input type="checkbox"/> Prepared Off-Site <input type="checkbox"/> Field Cleaned <input type="checkbox"/> Disposable <b>TIME SERIES DATA:</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Time:</td> <td style="width: 15%;">_____</td> <td style="width: 15%;">_____</td> <td style="width: 15%;">_____</td> <td style="width: 15%;">_____</td> <td style="width: 15%;">_____</td> <td style="width: 15%;">_____</td> </tr> <tr> <td>Cum. Volume (gal):</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Temp. (°C):</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>pH (Std. Units):</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Spec. Cond. (µmhos/cm)</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Turbidity (NTU):</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>Other:</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </table> Pumping Rate: _____ gal/min. Elapsed Time: _____ min. Volume Pumped: _____ gal.		Time:	_____	_____	_____	_____	_____	_____	Cum. Volume (gal):	_____	_____	_____	_____	_____	_____	Temp. (°C):	_____	_____	_____	_____	_____	_____	pH (Std. Units):	_____	_____	_____	_____	_____	_____	Spec. Cond. (µmhos/cm)	_____	_____	_____	_____	_____	_____	Turbidity (NTU):	_____	_____	_____	_____	_____	_____	Other:	_____	_____	_____	_____	_____	_____
Time:	_____	_____	_____	_____	_____	_____																																												
Cum. Volume (gal):	_____	_____	_____	_____	_____	_____																																												
Temp. (°C):	_____	_____	_____	_____	_____	_____																																												
pH (Std. Units):	_____	_____	_____	_____	_____	_____																																												
Spec. Cond. (µmhos/cm)	_____	_____	_____	_____	_____	_____																																												
Turbidity (NTU):	_____	_____	_____	_____	_____	_____																																												
Other:	_____	_____	_____	_____	_____	_____																																												
<b>SAMPLING DATA:</b> Sample Collection Time: _____ Date: _____ METHOD: <input type="checkbox"/> Bladder Pump <input type="checkbox"/> Submersible Pump <input type="checkbox"/> Bailer <input type="checkbox"/> Other: _____ MATERIALS: Pump/Bailer: <input type="checkbox"/> Teflon® <input type="checkbox"/> Stainless Steel <input type="checkbox"/> PVC <input type="checkbox"/> Other: _____ Tubing/Rope: <input type="checkbox"/> Teflon® <input type="checkbox"/> Stainless Steel <input type="checkbox"/> PVC <input type="checkbox"/> Other: _____ SAMPLING EQUIPMENT: <input type="checkbox"/> Dedicated <input type="checkbox"/> Prepared Off-Site <input type="checkbox"/> Field Cleaned APPEARANCE: <input type="checkbox"/> Clear <input type="checkbox"/> Turbidity (NTU) _____ <input type="checkbox"/> Color: _____ FIELD DETERMINATIONS: Temp. (°C): _____ pH (SU): _____ Spec. Cond. (µmhos/cm): _____ <b>REMARKS:</b> _____ _____ I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.  Signature: _____ Date: _____																																																		



**TABLE 6**  
**INFORMATION RECORDED**  
**IN FIELD LOG BOOK**

- Purpose and location of sampling
- Contact person
- Monitor well location (e.g., monitoring well number)
- Type of sample (e.g., groundwater)
- Parameters to be analyzed
- Preservation and treatment
- Number and volume of sample
- Description of sampling method
- Date and time of collection
- Sampler's name
- Sample number
- Sample distribution
- Field observations
- Field measurements

